ELEMENTARY EDUCATION IN INDIA

The Unfinished Business

J. P. NAIK

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Dadabhai Naoroji Memorial Lectures, 1963

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PREFATORY NOTE

Mr. J. P. Naik, former Adviser (Primary Education) in the Union Ministry of Education and now Member-Secretary, Education Commission, Government of India, was awarded the Dadabhai Naoroji Memorial Prize for the year 1963 in the subject of Education. In August 1964, he delivered three lectures on *Elementary Education in India—The Unfinished Business* which are now published for the information of the general reader.

Bombay
25 December 1965

Contents

LECTURE I*

Strategy and Priority

The provision of universal elementary education has been a cherished goal of the Indian people for more than eighty years. The demand for this service, obviously stimulated by the passing of Elementary Education Acts in England between 1870 and 1880, was first put forward by a few enlightened Indians before the Indian Education Commission of 1882. The Grand Old Man of India, Dadabhai Naoroji, was one of them. He contrasted the "British" policy towards elementary education in England (where the first Parliamentary grant of £ 20,000 for education was sanctioned in 1833, but further expansion was so rapid that, by 1882, compulsory education laws had already been passed, the total enrolment had increased to 4.857 million or one in seven of the population and the total expenditure on elementary education increased to 4s 3d per head of population) with the "un-British" policy in India (where the first Government grant for education was sanctioned twenty years earlier in 1813 but where further expansion was so slow that, by 1882, the total enrolment in elementary schools had increased only to 1.633 million or one in 114 of the population, and the total expenditure on education had increased only to 8.71 paise or less than a penny per head of the population). He described it as a "sad, sad tale" which allowed "nearly 25 million children to grow up in ignorance." But, at this early period, the Commission would not even entertain the concept of universal and compulsory education and all his eloquent pleading was in vain.

The thread was again taken up by another man from Bombay—the late Gopal Krishna Gokhale—who moved, first, a Resolution (1910) and then a Bill (1911) in the Central Legislature for the permissive and gradual introduction of compulsory education through the local bodies. But the Resolution had to be withdrawn

*I would like to clarify that the views expressed in these lectures are personal and that they do not represent either those of the Ministry of Education or the Education Commission.

and the Bill was defeated because the Government of the day felt that the concept of compulsory education was ruled out by "administrative and financial considerations of decisive weight." But Indians insisted on thinking differently. Maharaja Sayajirao Gaekwar of Baroda, who has been rightly described as a prince among the educators and an educator among the princes, boldly introduced the experiment in the Amraeli Mahal of his State in 1893 and in all its areas in 1906; and all the legislatures of the British Indian provinces passed compulsory education laws between 1918 and 1930. The concept of compulsory elementary education thus came to be accepted in theory and was incorporated in the laws of the land, especially after the transfer of education to Indian control in 1921.

The acceptance of a programme in principle by enacting the necessary legislation is one thing and its practical implementation quite another, especially in a country like ours where the distance between "theory" and "practice" has always been very wide. The provision of universal elementary education is the costliest of all social services and its implementation was held up in India by two main difficulties: the first was the large birth-rate and the rapid growth of population which continually increased the size of the problem and made it more difficult; and the second was the extreme poverty of the people and the country which, on the one hand, made it almost impossible for the Government to raise the necessary financial resources to support the programme and, on the other, prevented the bulk of the children, who had to assist their poor families by working at home or outside, from attending the schools on a whole-time basis. The first of these two problems—inordinate population growth—has not yet been tackled in earnest and it is only now that family planning and population control have begun to receive serious attention. But an attempt to resolve the second difficulty—the poverty of the State and the people—was made by two great men. The first was the late R.V. Parulekar who advocated the adoption of the double-shift system, partly to reduce the cost of educating a child, and partly to enable the poor children to work at home and to receive education simultaneously. The second was the idea of basic education put forward by Mahatma Gandhi who introduced the concept of socially productive, useful work into education and felt that elementary education, conducted

on "basic" lines, should be self-supporting—a characteristic of the experiment which he described as an "acid test" of its success. But neither of these had received a fair trial by 1939 when the Second World War broke out and put all developmental programmes in cold storage for some time. In 1944, the Central Advisory Board of Education prepared a plan—known popularly as the Sargent Plan after Sir John Sargent who was then the Education Commissioner with the Government of India—which accepted the concept that the National System of Education in India must include a provision for the compulsory schooling of eight years for all children (age-group 6-13). As it was not worried on the financial score—it was planning for a period of 40 years during which time it expected the Indian economy to be buoyant—it did not have to accept Parulekar's device of the double-shift which was purely financial in origin and admittedly diluted quality to some extent. It, however, accepted Gandhi's idea of basic education—both for its qualitative aspects and for its inculcation of the dignity of labour —but without its acid test of self-sufficiency. All that it expected from the teaching of craft was that its produce should pay for the cost of raw materials. Consequently, its financial estimates rose very high—it needed Rs. 200 crores a year for elementary education or about 66 per cent of the total educational expenditure of Rs. 300 crores, or Rs. 7 per head of population (then estimated at 29 crores) at the 1939 prices. The Kher Committee which examined the Sargent Plan from the "national" point of view, accepted the programme of universal, compulsory and free basic education as proposed in the Plan itself but reduced the time factor from 40 (1944-84) to 16 years (1944-60). This view was accepted by the framers of the Constitution in 1950 and that is why Article 45 of the Constitution directs that the State shall endeavour to provide free and compulsory education for all children till they reach the age of 14 years within ten years of the date of adoption of the Constitution on the 26th of January 1950.*

*It will be noticed that the constitutional provision mentions only "free and compulsory" education and makes no reference to the "type" of education to be provided—basic or non-basic. Similarly, it mentions only the upper age-limit of compulsory education (14 years) and not its beginning nor the duration of the compulsory school period. This was done purposely to avoid controversies regarding "basic" education or the age of admission to elementary schools (opinions varied from age 5 to age 7) or making pre-primary education (age 3 to age 6) also compulsory.

II

Elementary education in the post-Independence period thus began with a "good" resolution and it appears to me that, in our way of life, the "making" of good resolutions is far more important than "implementing" them. It is not entirely a matter for surprise, therefore, that we have not been able to implement this constitutional directive and to bring all children in the age-group 6-14 to schools by 1960. The First Five Year Plan (1950-55), conceived soon after the adoption of the Constitution, did give a very high priority to elementary education; but the failure became evident as early as 1956 when the Second Five Year Plan was adopted, which showed that by 1960 we would only enrol about 61 per cent of the children in the age-group 6-10 and only about 23 per cent of the children in the age-group 11-13. The question was, therefore, examined in great detail by the education panel of the Planning Commission which met at Poona in 1958. It recommended that the old idea of treating education for the age-group 6-14 as an integrated whole might be given up and we might divide this period of eight years of elementary education into two—primary education of five years (age-group 6-10) and middle school education of three years (age-group 11-13). It further recommended that universal and compulsory education at the primary stage should be provided by the end of the Third Plan (1965-66) and similar education at the middle school stage at the end of the Fifth Plan (1975-76). This amendment, in itself, implied a considerable watering down of the original targets. But, unfortunately, we will not be able to implement even this revised programme. In so far as the age-group 6-10 is concerned, universal education will have been provided by the end of the Third Plan (1965-66) only in the States of Kerala and Madras and in the Union Territory of Delhi; the seven advanced States (Andhra Pradesh, Assam, Gujarat, Maharashtra, Mysore, Punjab and West Bengal) will reach the goal at the end of the Fourth Plan (1970-71); and the six backward States (Bihar, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh) will reach it only by the end of the Fifth Plan (1975-76). In so far as the age-group 11-13 is concerned, Madras, Kerala and Delhi may provide universal and compulsory education by 1975-76; the seven advanced States may do so by 1980-81; and

the six backward States by 1985-86 at the earliest! At one time we all felt that the proposal of the Sargent Plan to provide free and compulsory education for the age-group (6-13) by 1984 was "anti-national" and "fantastically slow." Today, we have come to a stage when the implementation of even the Sargent Plan will be regarded as a "progressive, bold and ambitious target!" There is also one more point that I must mention. To me, the tragedy is not so much the failure to implement the directive of Article 45 of the Constitution by 1960. It is a greater tragedy that even today we have no official programme to tell us *when*, if at all, we shall reach this goal—there are some States who want to do it by the Ninth Plan (1989-90) and some even by the Eleventh Plan (1995-2000).

The principal question before us, therefore, is this: Why is it that the progress of elementary education is so slow and why is it that we are unable to implement the *only* directive principle of the State policy in education? Obviously, it is on the correctness or otherwise of our answer to this question—on our correct diagnosis of our failure to reach this national goal—that the ultimate solution of the problem will depend. Fortunately, the subject has been often discussed—too often as a matter of fact—and the general causes which impede the progress of elementary education have been diagnosed, more or less accurately. They include: our large birth-rate and consequent explosion of population; the inability of the Government to raise the financial resources needed to support this massive programme; the apathy of the illiterate masses to education; the traditional resistance to the education of girls; the existence of backward groups such as scheduled castes and tribes or the nomads; the poverty of the parents which compels them to use the labour of children at home or outside; small and scattered habitations—we have more than 250,000 habitations of less than 100 people each; large forest and inaccessible areas; and the absence of a suitable machinery to enforce compulsory attendance and the immense cost that would be involved in creating it. Taken together, these physical, social, cultural, economic and administrative handicaps make the problem of providing universal elementary education extremely difficult and costly, if not impossible.

While this general aspect of the problem is widely known, there is another and more important aspect of which very little is known

and on which I would like to dwell in some detail. I refer here to the six backward States which are lagging so painfully behind—the States of Bihar, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh. They form the big belt of northern India from west to east—the heart of Aryavarta, if you like. Their total population (1961) is about 45 per cent of the Indian Union, but at the end of the Second Plan (1960-61) contained about 60 per cent of the total non-attending children in the age-group 6-10 in the country as a whole. Unsatisfactory as this situation is, it will be worse still at the end of the Third Plan (1965-66) because, during the Third Plan itself, the advanced States have made much greater progress than the backward States. According to the present indications, these backward States will not be able to achieve their original targets of enrolment at the primary stage (classes I-V) in the Third Five Year Plan; and even if they did, the total number of non-attending children in the age-group 6-10 in these six States will, in 1965-66, be 67.5 per cent of the total non-attending children in the country as a whole as against about 60.1 per cent in 1960-61. Uttar Pradesh (29 per cent) and Bihar (13 per cent) alone would have about 42 per cent of the non-attending children in the Indian Union! At the end of the Fourth Plan (1970-71), most of the advanced States would have provided compulsory education in the age-group 6-10 and more than 98 per cent of the non-attending children in this age-group in the country as a whole would be in these six States only! In the age-group 11-13, the position is even worse—these States are not even able to keep pace with the growth of the population. For instance, the total population of children in the age-group 11-13 in these six States will rise, during the Third Plan, by 2.84 million—from 12.07 million in 1961 to 14.91 million in 1966. But in the same period, the additional enrolment in classes VI-VIII in all the six States would be only 1.37 million. That is to say, the number of non-attending children in the age-group 11-13 in all these States will increase from 10.02 million in 1961 to 11.68 million in 1966.* The position of the enrolment of girls in this age-group, particularly in rural areas, is almost hopeless. In Uttar Pradesh, for instance, the enrolment of girls in the age-group 11-13 in the rural areas is about *one* per cent at present and may

*For details of statistics referred to here, please refer to Table Nos. I and II (pp. 20-1).

rise to about *two* at the end of the Third Plan! It is, therefore, evident that, in so far as expansion of elementary education is concerned, the problem is one of the six backward States only. I have no anxiety at all about Kerala, Madras or Delhi; they will roll on to universal education in the age-group 6-13 by 1975-76. I also have no particular anxiety about the seven advanced States. The public awakening in these areas is terrific; the Governments also have become conscious of their responsibilities in this regard and, with a little financial assistance from the Centre, they too will reach the goal a little later, by 1980-81. But in so far as the six backward States are concerned, the problem is extremely acute and difficult, and we may assume it as an axiom that the future of elementary education in India *is* the future of elementary education in these six States.

Why is it that these six States are so backward in elementary education? There are a number of physical, social, cultural, historical and economic factors. Rajasthan has vast desert areas where the population lives in small and scattered hamlets—a situation which is basically repeated, although in a different context, in the hill areas of Uttar Pradesh, Orissa, Jammu and Kashmir, and Madhya Pradesh. The traditional resistances to the education of girls are comparatively strong in these States and it is more difficult to obtain women teachers. They also have large populations of the backward classes, the scheduled tribes being particularly concentrated in Bihar, Orissa, Madhya Pradesh and Rajasthan. By and large, these areas are comparatively less industrialised and less urbanised and generally poorer. Bihar is the poorest State in India. But, perhaps, the most important cause is historical—a century of neglect. In 1950-51, all these States started with a severe handicap—the enrolment in classes I-V in them varied from 10 to 36 per cent of the age-group 6-10 and that in classes VI-VIII from 5 to 12 per cent of the age-group 11-13. In spite of all their efforts in the first three Plans—and these have by no means been inconsiderable—they have not yet been able to overcome this handicap. In 1950-51, they were the six least advanced States in elementary education and they will again be so at the end of the Third Plan in 1965-66, although the gap between them and the advanced States has been narrowed down to some extent.

III

The simple problem which now faces the country is, therefore, one of *approach*. If the present approach to the problem is to continue, there is no reason to expect results much different from those that we have obtained in the last three Plans and we shall have to reconcile ourselves to the position that the constitutional directive may be realised somewhere between A.D. 1985 and 2000! On the other hand, if we are convinced that we cannot afford to wait so long to put across this vital programme, we shall have to review the entire situation *de novo*, and change our very approach to the problem. I strongly hold the view that what is needed is a change of approach, the adoption of a new strategy, unorthodox but effective, and it is this new strategy that I would like to elaborate in some detail.

The first element in the new strategy is that the programmes of elementary education should be pursued side by side with those of mass education with special reference to liquidation of adult illiteracy, the development of scientific attitudes in all walks of life and the popularisation of a programme of family planning. We have somehow failed to see the fact that a crash programme of elementary education (and it is precisely this which the Constitution visualised) cannot be put across in an overwhelmingly illiterate society. For instance, so many of the evils of our system of elementary education arise from one single factor, the illiteracy of the parents, e.g. their general apathy to education, resistance to sending girls to schools, lack of interest in the school progress of their children which, in its turn, leads to such deficiencies as absenteeism, stagnation and wastage, etc. It would, therefore, be a great asset to the programme of universal education for all children to combine it with that of liquidation of adult illiteracy. But this is just what we have not done. We do not realise that education works under a "law of expanding demand," that is to say, each educated parent tries to provide better and longer education to his children than what he received himself. In all advanced countries, therefore, compulsory education laws remain only on paper because the very education of parents ensures the attendance of children in schools. Unfortunately, we are working in a vicious circle at present. The masses are illiterate and hence apathetic to education. Their children,

therefore, do not attend schools and this, in its turn, swells the ranks of adult illiterates in the next generation. One way to break this vicious circle is to organise mass campaigns to liquidate adult illiteracy, which will immediately ensure the success of this programme of universal elementary education. I would advocate this programme even on financial grounds because the cost of liquidating adult illiteracy would be less in comparison to the vast sums that we now lose, year after year, through wastage and stagnation at the elementary stage.

This strategy—the liquidation of adult illiteracy—would take care of one aspect of the problem, i.e. quick enrolment of all children into schools, better attendance and longer retention. But this is not enough. The programme of adult education which I have in view will go much beyond literacy and will also include extension education whose objectives would be twofold: (1) to educate and motivate the adults to adopt family planning as a significant step for their own happiness and for national prosperity; and (2) to help them to build scientific attitudes in all walks of life. It is obvious that the growth of our national economy will depend very largely on these two crucial programmes. The first programme of family planning will reduce the load on the educational system very considerably. At the present birth-rate, we shall have to provide for an enrolment of about 20 per cent of the total population (which is a very large population at that) if universal education is to be introduced in the age-group 6-13. If the birth-rate can be halved, the total size of the population would be much smaller and we shall have to provide for only about 12 per cent of this reduced population in elementary schools. In fact, it is possible to show statistically that, if our birth-rate could have been halved, the actual enrolment of children that we had in our elementary schools in 1960-61 would have enabled us to fulfil the directive of the Constitution! The second programme, the building up of scientific attitudes, is essential for family planning itself and also for modernisation of agriculture and the development of industries. This will help us to raise the national dividend and thus provide the financial foundation on which alone a programme of universal and compulsory elementary education can be securely built.

The organisation of mass campaigns of adult education with the objectives of liquidating adult illiteracy, popularising family plan-

ning and building up of scientific attitudes is thus the first plank in the new strategy to be adopted. The second is provided by the two proposals of R.V. Parulekar which we have neglected so far to our own cost. The first of these is the adoption of the system of part-time education for those children who are required to work in, or for, their families. Such a programme would obviously take care of two acute problems which we have to face at present: (1) inability of a large proportion of children in the age-group 9-14 to attend schools on a whole-time basis on account of poverty, and (2) the large wastage that now occurs, because the moment a child grows old enough to earn, he has to be withdrawn from schools which either give whole-time education or none at all. At present, we have only a system of full-time schools where we expect the children to attend for about six hours a day, not any six hours or even the six hours that suit children best, but the *six hours we choose* on some ad hoc basis. This leads to two evils: many children who have to do some work at home do not come to the school at all; others come to school at early ages when they are more a nuisance than a help at home, but are withdrawn as soon as they become old enough to assist, say, about 9 or 10 years of age, and this leads to the evil of wastage. A system of part-time instruction would help all such children. But we are too sophisticated to accept it. Consequently, "better" becomes the enemy of the "good" and the children of poor parents receive no education at all. We must remember that a system of part-time education has been adopted by every developing country which is eager to provide universal education. In China, for instance, 26 million children out of 86 million, who attend schools, do so on a part-time basis. I concede that ultimately we should provide full-time education for all children. But that day is rather distant and in the present conditions of unparalleled poverty we should take a realistic view of the situation and adopt a carefully designed system of part-time schools which would enable needy children to receive education even when they are working in, or for, their families. It would also reduce substantially the large wastage that now occurs because researches have shown that about 65 per cent of it is due to economic causes alone.

The second part of Parulekar's proposals is to adopt a larger pupil-teacher ratio by adoption of larger class-sizes or the double-shift system. This will have two advantages: it will reduce the cost

per pupil and make the programme financially more feasible, and will also enable us to give a better remuneration to the teachers. The development of universal education for children generally takes place in two stages. In the first stage, the number of children to be enrolled is very large and the resources available are limited. In the second stage, the additional enrolments become smaller because most of the children are already at school and the resources available increase because of an improvement in the economic situation. The best strategy in developing a programme of universal education, therefore, is to deliberately adopt a larger pupil-teacher ratio in the first stage till full enrolment is reached and then gradually to reduce it as more funds become available. We are unwilling to adopt this strategy and insist on small pupil-teacher ratios right from the start. The result is that costs go up, enrolments get slow and teachers remain low paid.

We cannot be too grateful to the late R.V. Parulekar for working out the details of this strategy.* But we have not taken his wise counsel which alone would have made this problem capable of an early solution; and the tragedy of the present situation is that a problem which is already very difficult is made almost impossible of solution by the adoption of techniques and methods of teaching which can only suit a more advanced stage of economic development.

There is a third element in the new approach that I am advocating, viz. that in the next ten years, we should emphasize the education of children in the age-group 9-13 as much as that of those in the age-group 6-10. In the Patel Memorial Lectures, Dr. Zakir Husain has pointed out that, if we had inadequate funds, much better results would be obtained by educating the grown-up children, say, in the age-group 9-13, than those in the age-group 6-10. In the first place, the numbers involved in the older age-groups are smaller. Secondly, the results are better and quicker and the wastage is much less because the children are older. For instance, a child in the 11-13 age-group can be taught in a part-time school in one or two years (at a cost of about Rs. 20 per child per year) what a child in the age-group 6-10 takes four or five years to learn on a whole-time basis (at a cost of about Rs. 30 per child per year). It would, therefore,

*R.V. Parulekar: *Literacy in India*, Macmillan & Co., Bombay, 1939.

be worth while to consider the possibility of compelling every child in the age-group 11-13 (or 9-13) who cannot attend schools on a whole-time basis, to attend them at least on a part-time basis, for about 1½ to 2 hours per day and for about three days in a week. To begin with, these part-time schools would be of three types: (1) some will be attended by children who have completed the primary school in the age-group 6-10, who wish to study further but cannot afford to do so on a whole-time basis; (2) some others will be attended by those children who went to school in the age-group 6-10, did not complete the course, but are also not quite beginners; and (3) still others will be attended by those novices who never went to school in the age-group 6-10 or by those who went to school for a while but again lapsed into illiteracy. These schools can be conducted by the existing teachers of elementary schools, in the existing buildings and with existing equipment, if an allowance is paid to them which, incidentally, would be a welcome addition to their salaries in these days of rising prices. The experiment should begin in a big way in the Fourth Plan and by the end of the Fifth Plan our aim should be to enrol all children in the age-group 11-13 who do not already attend schools on a whole-time basis in such part-time instruction. No insuperable financial hurdles need arise because this can be done at about half the cost needed for full-time education. By then, all children of the age-group 6-10 would also have been brought into schools even in the backward States so that it will still be possible to fulfil the constitutional directive by 1975-76 or, at the latest, by 1980-81. As time passes, the third and second of these types of schools will disappear gradually as education in the age-group 6-10 becomes universal and compulsory. But the first type of part-time schools that are meant for children in the age-group 11-13 who have completed the primary school in the age-group 6-10 (who desire to study further, but cannot attend schools on a whole-time basis) will have to continue for a fairly long time till the general economic condition of the people improves considerably.

IV

This new strategy will be effective only if it is backed up with adequate funds which can be obtained if a higher priority is accorded

to elementary education in the next three Plans than that in the first three. At present, we accord a very low priority to elementary education; and, in my opinion, this hinders our progress considerably. The speeches that we make in favour of elementary education are so good, so frequent and come from so many publications that I will first have to establish that we do *not* give adequate priority to elementary education. In the British days, our most frequent criticism was that our educational system was like an inverted pyramid, that too little was spent on elementary education (in 1947, the total direct expenditure on elementary education was about 40 per cent of total educational expenditure), and that elementary education should receive at least 50 per cent of the total educational expenditure. We all fondly hoped that the earlier policies would be abandoned in the post-Independence period, especially when the programme of universal education for children was singled out for inclusion in the Constitution itself. But the facts are just the opposite. The Government of India appointed commissions for university and secondary education but not for elementary education; the rate of expansion of secondary and university education is now much faster than that of elementary education so that the educational system has become even more inverted than what it was in 1947; and the total direct expenditure on elementary education is now 35 per cent of the total educational expenditure as against 40 per cent in 1947. It is no wonder that the constitutional directive is *not* fulfilled. It would have been nothing short of a miracle if we could have fulfilled it with the adoption of these policies.

Why is it that we do not give adequate priority to programmes of elementary education in the post-Independence period—a priority which is implicit in all our talk of the pre-Independence days and in the Constitution itself?

Briefly, the argument is that elementary education is conducive only to social justice, and not to economic growth which is the topmost priority of the day. I, unfortunately, belong to the old-fashioned school which regards social justice as of greater importance than economic growth. To me, therefore, the priority of elementary education is implicit even in this argument which seeks to deny it. But I will not press that issue. I will also not argue the historical issue that we must be consistent with all our pre-Independence promises, nor the legalistic point that loyalty to the

Constitution demands the highest priority to this programme. I will admit, for the sake of argument, that economic growth is the highest and most urgent objective, and that the priority to be accorded to any educational programme will be directly proportional to the contribution which it makes to economic growth. I cannot wholly subscribe to this thesis because there are educational programmes which need priority on grounds other than economic, and because man does not live by bread alone. Without pressing the argument, however, and even on the limited basis of simple economic growth, I still claim that programmes of mass education—a combined programme of adult education which will include literacy, family planning and the building up of scientific attitudes, and universal education of children taken together—have an overriding priority, next only to that of technical education and scientific research.

Let me elaborate the point a little further. In my opinion, there are two very important conditions for economic growth. The first is some sort of population control; and the second is the modernisation of the traditional social order. Taking population control first, I feel that a programme of family planning, which is essentially a programme of providing the needed education and motivation, can never be put across unless it is built on the solid foundations of mass education. The final result in population control depends, not on the decisions taken in Delhi or in State capitals, not even on the financial provisions made in the five-year plans, but on what every adult thinks, feels and does about this issue. It involves the informed and willing participation of *each* and *every* adult (man and woman) who must be made aware, first of the tremendous issues that depend, both for himself and for his country, on the number of children that he may choose to have, and, second, of the scientific fact that it is *he* who *can* and *must* decide the number of his children and *not* leave it to fate or God or the sins and merits of previous births. Simultaneously, he must also have the *will* and the *courage* to take a right decision suited to his condition and the *know-how* and the *perseverance* to implement it, once it is taken. These conditions, which alone can ensure the success of a programme of population control, can only follow a programme of universal mass education with which the programme of universal education for children is integrally related.

The second condition of economic growth—modernisation of the traditional social order—is even more fundamental. This primarily implies, not a modernisation of externals such as the introduction of jet planes, television sets, steel plants or hydel dams, but a modernisation of mind and character. Moreover, it has to be a modernisation, not of a few individuals or even classes, but a modernisation of the society as a whole. In other words, every man and woman has to develop a passionate zeal for this country and all that it stands for, i.e. democracy, secularism, tolerance, social and economic justice, and equality of educational and employment opportunity for all. He must learn to consider *this* world and *this* life significant enough to deserve his zealous attempt to reform it. He must also develop a scientific outlook on life and cultivate the essential productive skills and qualities of cooperation and hard work. He must learn to restrain his consumption in order that the capital needed for reconstruction may come into being. The modernisation of Indian society, from which its economic growth will follow as a corollary, can, therefore, be achieved only if we can create an organisation which would build up these essential values, attitudes and know-how in every citizen. This again can only be done in a programme of mass education from which the programme of universal elementary education is inseparable.

Why is it, then, that mass education continues to be neglected in the post-Independence period? To me, the main socio-psychological explanation of the phenomenon lies in the increasing distance between the masses and the intelligentsia. The intellectuals have, no doubt, a very important role to play in the modernisation of social order and in securing economic growth. But they will not be able to deliver the goods, unless they are also able to take the masses with them. It is true that India has an ancient and strong intellectual tradition; but unfortunately it has been too self-centered and has lacked a strong communion with the people at large. In the pre-British days, this was due mainly to the fact that the intellectuals belonged to a small caste. During the last 150 years, a new intellectual class has arisen which includes people from almost every stratum of society. Towards the end of the nineteenth century, this new class launched a struggle for political power on the ground that it represented the masses of India; and as time passed and the struggle against British imperialism grew in intensity, its ties

with the masses became closer and charged with emotion. With the disappearance of the British power, however, these bonds have become weak again and the intelligentsia seems more and more to live and work for itself and become an exploiting rather than a service group. In my opinion, this is the most dangerous trend in the present situation. The British Government never accepted responsibility for educating the masses. All that it tried to do was to create "a class of educated Indians" and to leave it to this class to educate their brethren. In a way, they accomplished their task and left. It is now the sole responsibility of the educated classes in India to provide education to the masses and to improve their living conditions. It is *they* who are now on trial. Will they regard themselves as the servants of the people and strive their utmost for their education and betterment, or will they strive to utilise the available resources, to the extent possible, for programmes which entrench their privileged position still further, is the question which is to be answered.

To my mind, there is no doubt about the choice. Gandhi said that he would like "to wipe every tear from every eye." The intelligentsia of today, which has inherited and enjoys the fruits of the sacrifices of this great Father of the Nation, has a duty to him and to itself to make this basic role of the Mahatma—to wipe every tear from every eye—as its mission in life and to hold the unhappy masses closest to its heart. This alone can enthuse the masses to hard work and to sacrifices without which the economic growth of the country cannot be brought about; men are at their best when they get, not only knowledge, but love as well. I may also add that it is only through this loving, well-informed and constant devotion to the well-being of the masses that the intelligentsia can save even itself, because its own future is inextricably linked with that of the masses.

It is my thesis that the low priority accorded to elementary education in the post-Independence period is merely a symptom of a dangerous trend that seems to be growing—the isolation of the intelligentsia from the masses. That is the stark, naked truth; and since it is too hideous to be faced, we try to cover it up under a cloak of learned arguments as to why mass education or elementary education cannot be given priority in a programme essentially oriented to economic growth. It is my contention that this policy will

impede even economic growth and ultimately lead to all round ruination. I, therefore, hold that programmes of mass education, as defined above, have to be given the highest priority and the best possible allocation from the resources available, not only from the point of view of humanity and social justice, but also for quicker economic growth and in the enlightened self-interest of the intelligentsia itself.

I think that we have a lesson to learn from the communist countries in this regard. The dogma that economic factors are primary to all development is essentially a Marxist doctrine. Curiously the communist countries have observed it more in the breach than in the fulfilment, at least in so far as the educational development is concerned. They have all placed the highest emphasis on changing man, and on the development of mass education programmes. In other words, they have acted on the supposition that an "educational" take-off precedes the "economic" take-off. On the other hand, the so-called free world which vehemently denounces the Marxist doctrine of the primary role of the economic factors, actually acts in exactly the opposite way inasmuch as it places greater emphasis on dams, roads, aeroplanes, factories and the like, and gives a low priority to education as a whole and particularly to programmes of mass education. For instance, a comparison between Indian and Chinese policies in this sector affords an interesting contrast. The communists came to power in China in 1949 and, curiously enough, this is about the time we took the decision to enforce compulsory education in a period of ten years. It is seen therefrom that, in 1949-50, the position of adult literacy or elementary education was more or less the same in the two countries. But the latest accounts of Chinese education show the tremendous progress they have made in mass education. Large literacy campaigns have been organised; and in spite of the difficulties of the Chinese script—one has to learn about 5,000 symbols to be able to read and understand Chinese literature intelligently—millions of persons pass literacy tests every year and it is now claimed that the percentage of literacy has risen to 70 or that, barring those people who are too old to learn, almost every person has become literate. In India, the percentage of literacy is still 24 and we have done little to liquidate adult illiteracy. In elementary education, China has already been able to enrol 92 per cent of children

in the corresponding age-group as against 61 per cent in India. I believe that the communist policies with regard to mass education do have a lesson for all the democracies, which can be ignored only at their peril.

It has been often said that the Government does not have the financial resources to introduce universal elementary education. I am afraid that this is not correct and the truth probably is what I have stated earlier, that we are not prepared to give adequate priority to elementary education. Let me illustrate this point. At the end of the Third Plan, we would have about 60 million children in elementary schools at a recurring cost of Rs. 2,100 million or Rs. 35 per child per year. At the end of the Fourth Plan, the total population in the age-group 6-13 would be about 110 million, and assuming that the cost per pupil will also rise to Rs. 40 per annum in the meantime, we shall need about Rs. 4,400 million for this programme in 1970-71. The recurring expenditure on elementary education would thus have to be about doubled in a period of five years. Is this additional amount impossible for the country to raise? *Most certainly not.* One might probably have accepted the argument in 1961. But when we saw, in response to the Chinese aggression, that our defence expenditure rose by about Rs. 1,000 million in 1962 and by another Rs. 4,000 million in 1963, how can we accept this logic? If the country could feel the threat of mass illiteracy as deeply as that of Chinese expansionism—and it is, believe me, a potentially much greater threat—I am quite sure that all this money would be raised, not in five, but even in one year. Poor as we are, the lack of concern for the cause, the sheer lack of will, and not the lack of monetary resources, is the real bottleneck.

V

Before I close this lecture, I shall briefly recapitulate the main points that I have been trying to put forward. I have shown that, in spite of the constitutional provisions and the lip-service paid to mass education in all official quarters, the progress of elementary education has been agonisingly slow in the post-Independence period. That this is due, in part at least, to the tremendous difficulties inherent in the problem is not denied. But my contention is that this is mainly due to two other controllable factors. The

first is our failure to adopt the right strategy: the development of programmes of mass education (which would include liquidation of adult illiteracy and extensive education aimed at family planning and the building up of scientific attitudes) side by side with expansion of elementary education; the introduction of a system of part-time education for those children who, for economic reasons, cannot attend schools on a whole-time basis; the adoption of a larger class-size or higher pupil-teacher ratio in the first stage of the programme; and placing of greater emphasis on the education of the age-group 11-13 than that of the age-group 6-10. The second, and an even more important, reason is the failure to accord an adequate priority to elementary education—the total expenditure on elementary education has declined from about 40 per cent of total educational expenditure in 1947 to 35 per cent in 1960-61. It is argued that this lower priority is justified on the ground that elementary education does not directly contribute to economic growth. I have shown how fallacious this argument is, and also that no economic growth would be possible in India unless it is preceded by programmes of mass education of the right type, including the provision of universal elementary education for children, which alone can help us to control population and to modernise the traditional social order. In my opinion, this lower priority accorded to elementary education is due mainly to the fact that the intelligentsia, which has come into power at the end of the British rule, is now tending to transform itself from a service group into an exploiting group. In this lies a great danger, not only to the masses, but to the intelligentsia itself and to the country as a whole. If this broad analysis is accepted, I would close by appealing to all educated classes of the country, who are now on their trial, to accord this programme the highest priority possible, not only in their own enlightened self-interest, but in the name of social justice, of humanity, and of him who gave us our freedom and desired us to strive to wipe out every tear from every eye.

TABLE I

PRIMARY EDUCATION IN THE LESS ADVANCED STATES IN THE THIRD FIVE YEAR PLAN

(in lakhs)

State	1961						1966					
	Total population in age-group 6-10		*Total enrolment in classes I-V*		*Non-attending children*		*Total population in age-group 6-10*		*Total enrolment in classes I-V*		*Non-attending children*	
	Boys	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*
Bihar	29.90	28.44	24.46	7.39	5.44	21.05	34.42	32.86	30.00	18.00	4.42	14.86
Jammu and Kashmir	2.63	2.33	1.65	0.45	0.98	1.88	3.03	2.69	2.24	0.78	0.79	1.91
Madhya Pradesh	21.62	19.96	15.54	4.42	6.08	15.54	24.88	23.05	20.00	10.00	4.88	13.05
Orissa	11.36	10.87	9.71	4.40	1.65	6.47	13.08	12.56	10.50	5.50	2.58	7.06
Rajasthan	14.03	12.72	8.99	2.16	5.04	10.56	16.14	14.69	13.90	7.10	2.24	7.59
Uttar Pradesh	19.77	44.94	32.25	8.68	17.52	36.26	57.29	51.92	45.00	21.50	12.29	30.42
Total for Less Advanced States	129.31	119.26	92.60	27.50	36.71	91.76	148.84	137.77	121.64	62.88	27.20	74.89
All-India Total	289.91	271.71	234.79	113.17	55.12	158.54	333.73	313.91	301.16	195.19	32.57	118.72
Percentage of Less Advanced States to All-India	44.60	43.89	39.44	24.30	66.60	57.88	44.60	43.89	40.39	32.21	83.51	63.08

TABLE II

MIDDLE STAGE EDUCATION IN THE LESS ADVANCED STATES IN THE THIRD PLAN

(in lakhs)

State	1961						1966					
	Total population in age-group 11—13		*Total enrolment in classes VI—VIII*		*Non-attending children*		*Total population in age-group 11—13*		*Total enrolment in classes VI—VIII*		*Non-attending children*	
	Boys	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*
Bihar	14.28	14.05	4.79	0.56	9.49	13.49	17.81	17.18	7.40	1.85	10.41	15.33
Jammu and Kashmir	1.29	1.15	0.48	0.12	0.81	1.03	1.61	1.41	0.72	0.16	0.89	1.25
Madhya Pradesh	10.33	9.65	2.68	0.49	7.65	9.17	12.88	11.81	4.16	0.80	8.72	11.01
Orissa	5.46	5.25	0.95	0.12	4.51	5.13	6.82	6.43	1.36	0.34	5.46	6.09
Rajasthan	6.86	6.16	1.79	0.28	5.07	5.88	8.56	7.53	3.10	0.75	5.46	6.78
Uttar Pradesh	24.16	22.01	7.02	1.22	17.14	20.79	30.12	26.91	10.00	1.60	20.12	25.31
Total for Less Advanced States	62.38	58.28	17.71	2.79	44.67	55.49	77.80	71.27	26.74	5.50	51.06	65.77
All-India Total	141.56	134.98	50.50	16.03	91.06	118.95	176.57	165.07	70.00	27.48	106.57	137.59
Percentage of the Less Advanced States to All-India	44.07	43.18	35.07	17.40	49.06	46.65	44.06	43.18	38.20	20.01	47.91	47.80

LECTURE II

Quality and Quantity

At present, no educational problem is exercising the public mind so much as the rapid expansion of education accompanied by a deterioration in quality. I welcome this growing concern for quality although I do not share all that is said about deteriorating standards, especially at the elementary stage. I also question the popular assumption, which seems to underlie so much of the discussion, that quality and quantity are mutually exclusive and that you can only have either one or the other. There is no inherent contradiction between quality and quantity in education: all advanced countries have been able to provide good education in adequate measure and India also could do the same *if* the necessary finances were available. The basis of this contradiction, therefore, is purely financial: when there is not enough money to go round and cover both quality and quantity, we are generally required to make the painful choice between one or the other. As the resources available to Indian education are limited at present and are going to be limited for some years to come, the main question which we have to face is the reconciliation between the conflicting demands of quantity and quality. The problem applies to all stages of education and is admittedly difficult. But it is not impossible of solution and I propose to discuss in this lecture some tentative solutions to it in so far as elementary education is concerned.

The first point that I would like to press is that, at the elementary education stage at least, there is no question of *either* quality *or* quantity. We must have *both—every* child must be at school and he must have *good* education. There is thus no choice about the *ultimate* goal. But it can be approached in a number of ways. In the first approach, there is an unrelenting stand on quality: all existing schools are first raised to a prescribed minimum standard and in opening new schools or admitting new enrolment, care is taken to see that the standards are not lowered on any account and are even raised, from time to time, to the extent possible. In

this approach, therefore, the cost per pupil is kept high and expansion takes place only in proportion to the additional funds available. In the second approach, quality is compromised with, costs per pupil are kept low, and the first priority is given to enrol every child in school as quickly as possible. When that task is accomplished, at least to a substantial extent, qualitative programmes are taken up and costs per pupil are raised as additional funds become available. In the third approach, a compromise is attempted between these two extreme positions and an attempt is made to secure expansion as well as to raise quality simultaneously by dividing the available resources between qualitative and quantitative programmes in some suitable proportion.

Which of these three approaches shall we adopt in elementary education is the question. My view is that the second of these approaches that adopts a crash programme of expansion in the first stage and then concentrates on the improvement of standards is probably most suited to Indian conditions. This can best be shown by a reference to the development of elementary education in Western countries. Here, the first stage was essentially one of quantitative expansion. The costs per pupil were low because of meagre salaries of teachers, large pupil-teacher ratios, comparatively less expenditure on buildings, equipment and school contingencies and the non-existence of ancillary services like school meals or free supply of text-books and writing materials. The objectives of elementary education were kept deliberately low, viz. confined in fact to the mere attainment of literacy, and the total duration of the course was consequently kept at a minimum, i.e. four or five years. When these minimum tasks were complete, or substantially complete, qualitative programmes were taken up. The objectives of education were re-defined and made co-extensive with preparation for life. This necessitated, on the one hand, extension of the duration of compulsory education, from 4-5 to 7-10 years; and on the other, it led to a revision of curricula, necessitating the recruitment of better teachers with high salaries and the adoption of low pupil-teacher ratios. The non-teacher costs of education had also to be increased by provision of better physical amenities and ancillary services. Consequently, enrolments went up and cost per pupil rose even more sharply. But the programme was ultimately complete—*every* child had been provided with *good* education. The

principal lesson of the development of elementary education in the West, therefore, is this: begin with expansion which has a limited target and is amenable to a crash programme. Once that is complete or mostly complete, begin the task of qualitative improvement in which the upper limit is the sky itself. One needs eternity to work for perfection and hence the best stage to attempt it is *after* expansion has been put behind. Obviously, similar developments should take place in India, or in any developing country.

By and large, it is this policy which has been adopted for the development of elementary education in the post-Independence period, although the Sargent Plan recommended differently. This Plan, it may be pointed out, adopted the first approach of an uncompromising stand on quality. It suggested that every teacher must have completed the secondary school and received two years' training. It also insisted on the payment of adequate salaries to teachers, assumed low pupil-teacher ratios and made fairly adequate provision for buildings, equipment, school contingencies and ancillary services. It also advised that the first five years should be devoted to the preparation of teachers and that expansion, as such, should only be attempted thereafter. This qualitative approach has its own obvious strong points; but it is applicable, by and large, to secondary and higher education. In particular, one would readily grant that departure from it at the post-graduate stage would be tantamount to disaster. But is it really so directly applicable to the elementary stage where the pressures of expansion are intense, or where, as R. V. Parulekar put it, expansion itself is a value of great significance? Even philosophically, therefore, I feel that the Sargent Plan overdid the case for quality at the elementary stage. But its advice was set aside, not so much on philosophical as on practical considerations. On the attainment of independence, a situation was created in which the masses, long denied the privilege of education, were clamouring for it with all their might and the new national governments which came into power were almost itching to provide this basic social service to the people. In a situation of this type, no one was in a mood to listen to the advice of the Sargent Plan to devote five years to mere preparation! The people wanted expansion, with quality, if possible, and without it, if necessary. Very naturally, they got it without quality; but I do not think any great harm was done.

While, therefore, I fully support the policy of expansion in elementary education adopted in the post-Independence period, I do hold that, at the end of the Third Plan, a change in policy is indicated. In 1947, the enrolment in classes I-V was only 35 per cent of the age-group 6-10, and that in classes VI-VIII was only 9 per cent of the age-group 11-13. Expansion, therefore, was then the crying need of the day. In 1965-66, however, the enrolment in classes I-V would have reached 76 per cent of the age-group 6-10 and that in classes VI-VIII, 32 per cent of the age-group 11-13. Taking the age-group 6-13, as a whole, more than 60 per cent of the children would have been enrolled in schools. We have thus been able to break the back of the problem of non-attending children and have also put expansion substantially behind us. I, therefore, feel that a stage has now been reached when the emphasis on elementary education may, by and large, be shifted to qualitative improvement; and if such emphasis is continued and intensified in the subsequent two Plans, we may be able to provide good elementary education to every child in the country by 1981.

I would make only two exceptions to this general recommendation. The first refers to girls. At the end of the Third Plan, about 97 per cent of the boys in the age-group 6-10 would have been enrolled and it is mostly girls that would have remained outside. In the Fourth Plan, therefore, an intensive effort to bring girls into schools must be made in all the States. The second exception refers to the six less advanced States of Bihar, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh. As I pointed out earlier, these six States have not yet been able to put expansion behind them. In these States, therefore, the emphasis on expansion of elementary education will have to be continued for some years more. But even here, quality will have to receive much greater emphasis in future than in the first three Plans.

It will thus be seen that we began, in 1944, with the Sargent Plan which chose the first approach of an uncompromising emphasis on quality. But the country was not prepared to accept this advice so that we adopted, in the first three Plans, the second approach of emphasis on quantity in the first instance. But now that expansion has been largely put behind, subject to two exceptions which also will disappear in about five years, the general policy in elementary education in the next three Plans should be to adopt the

third approach, viz. to develop quality and quantity side by side with an emphasis on quality.

II

How shall we implement this new policy in elementary education? For convenience of discussion, I will deal separately with its two aspects of expansion and qualitative improvement.

With regard to expansion, I have already said that I broadly agree with the policy of emphasizing expansion which we adopted in the first three Plans. In the next three Plans, however, certain modifications would be needed even with regard to our policies of expansion. For instance, our rate of expansion in the past has not been rapid enough. To give good results, a programme of expansion has to be a crash programme and must be completed within a few years. We must, therefore, revise our targets and aim at two specific achievements. (1) The enrolment of children in classes I-V is already equal to 100 per cent of the age-group 6-10 in the States of Kerala and Madras, and in the Union Territory of Delhi. The same targets should be reached in all the advanced States by the end of the Fourth Plan (1970-71) and in the backward States by the end of the Fifth Plan (1975-76) at the latest. (2) A programme of part-time instruction for children in the age-group 11-14 should be started in the Fourth Plan in a big way, and by the end of the Fifth Plan, it should be so developed as to cover most of the children in this age-group who are not attending schools on a whole-time basis. The first target is not very difficult. The total enrolment in classes I-V will be about 50 million at the end of the Third Plan (1965-66) and it will have to be raised to 84 million, which is the estimated population of children in the age-group 6-10, at the end of the Fifth Plan (1975-76). This implies an average increase of about 3.4 million every year which should not be difficult because our present rate of additional enrolment is about 4 million a year. The main lacuna, however, is that most of the burden of this additional enrolment will have to be borne by the six backward States. But even they will be able to rise to the occasion if some special assistance is made available. The second of these targets represents an entirely new programme. At present, we have only full-time schools in classes VI-VIII that will enrol about 10 million

children at the end of the Third Plan (1965-66). In the normal course, this enrolment will increase to about 16 million at the end of the Fourth Plan (1970-71) and to 25 million at the end of the Fifth Plan (1975-76). But the total population of children in the age-group 11-13 is expected to be 46 million in 1975-76. We will, therefore, have to enrol about 21 million children in this age-group on a part-time basis (two hours a day for three days a week)—about six million in the Fourth Plan and another fifteen million in the Fifth Plan. This would neither be very costly nor very difficult. But if such a programme can be put across, it will imply that the expansion of elementary education would mostly have been completed by the end of the Fifth Plan and that, in the Sixth Plan, we could concentrate our efforts almost wholly on quality.

There is one more aspect of this expansion that needs mention. It will also imply that all new additions to ranks of illiterates will be put an end to. We have to realise that, at present, the number of illiterates is *increasing* in spite of all expansion of elementary education which we have been able to secure. For instance, in 1951, the total population was 360 million and the percentage of literacy was about 16 so that the total number of illiterates was about 302 million. In 1961, the percentage of literacy increased to about 24. But in the meantime, the total population increased to 438 million and the total number of illiterates to 334 million. There is thus a net increase of 32 million in the number of illiterates in spite of the increase of the percentage of literacy from 16 to 24. Such a situation arises because a very large number of children are not either enrolled in school, or if enrolled, leave it too early to have attained permanent literacy. The programme of universal part-time education for those children who cannot, for one reason or another, attend schools on a whole-time basis, will completely seal off such leakages and permanently ensure that there would be no additions to the ranks of illiterates.

The second important modification needed in our existing programmes of expansion is to keep their cost as low as possible. At present, our expansion programmes cost too much, mainly because we are not prepared to accept money-saving devices like the double-shift system. Consequently, there is very little left over for programmes of qualitative improvement. I would, therefore, strongly recommend that we should adopt the double-shift system,

at least in classes I and II. This will raise the overall pupil-teacher ratio and secure the largest expansion possible at the minimum cost. In such an event, fairly adequate funds would be available for programmes of qualitative improvement, in spite of the fairly large expansion that is proposed to be achieved.

The third important modification which we will have to make in our programmes of expansion in the next three Plans is to make a conscious effort to secure equality of educational opportunity. In the first three Plans, a large expansion has been secured no doubt; but not having been deliberately organised on proper lines, it has not necessarily led to greater equality of educational opportunity. For instance, even at the end of the Third Plan, there will be appreciable inequalities of educational opportunity at several levels and in several sectors. From the national point of view, there will be wide gaps between advanced States like Kerala or Madras and backward States like Rajasthan or Uttar Pradesh. At the State level, we find great differences of achievement between certain advanced districts like Amraoti in Maharashtra and Bastar in Madhya Pradesh. Even within the same districts, there are often large differences between one tehsil of the district and another, and even within the same tehsil, not all villages are equally advanced. There are still large differences between urban and rural areas. From the social points of view, there is great inequality of educational development between boys and girls and also between the advanced classes on the one hand and the scheduled castes and scheduled tribes on the other. In the next three Plans, expansion of elementary education would have to be oriented deliberately to the removal of such inequalities. Suitable programmes to this end will have to be devised. We should also evolve statistical and other techniques to measure our progress in this direction from time to time.

Before leaving this subject, I would like to emphasize the fact that the techniques of expansion adopted in the first three Plans have served their purpose and that they will have to be greatly modified to suit the demands of the next three Plans. All expansion of elementary education takes place in three stages. The first is that of *universal provision* in which an attempt is made to provide a school within easy walking distance of the home of every child so that those who desire to educate their children may have the necessary facilities available. The second stage is that of *universal enrolment*

when an attempt is made to enrol every child into a school, by propaganda, persuasion or even penal action. This is obviously more difficult than the first. But even more difficult is the third stage of *universal retention* in which an attempt is made to keep in school every child who is once enrolled till he reaches the prescribed age or completes the prescribed class. It is obvious that these three stages are not mutually exclusive and that they often run into one another. In the first three Plans, the greatest emphasis was on the first stage, universal provision of schools. To assist in the realisation of this goal, an Educational Survey of the country as a whole was carried out in 1957.* It found that there were about 800,000 rural habitations in the country. It assumed that a primary school should be provided in every habitation of 300 people or more and that the smaller habitations should be so grouped that every child would have a school within 1-2 miles of his home. It also assumed that a middle school would be provided in every habitation of 1,500 people and that the smaller habitations should be so grouped as to create a middle school within 3-5 miles of the home of every child. On these assumptions, it proposed the opening of about 103,000 new primary schools and about 21,700 new middle schools. Most of these have been opened in the last seven years. All the same, it would be worth while to revise the educational survey in 1965 and, whatever task has yet remained undone, an effort should be made to complete it by the end of the Fourth Plan at the latest.

With regard to the second step in the programme, viz. universal enrolment, our achievements in the first three Plans have been rather haphazard. The main object of this step is to enrol all children in the age-group 6 *plus* (with some exceptions in the case of children of 5 *plus* or 7 *plus*) in Class I. But, unfortunately, we have not been very conscious of this objective. What happens at present is that children of all ages—from 4 to 14 and above—are indiscriminately enrolled in Class I. We, therefore, find that although the total enrolment in Class I is about 110 per cent of the population in the age-group 6-7, only about 35 per cent of these are of the correct age-group (6-7) and the rest are either below or above this age. The age-composition of the class is thus extremely heterogeneous and the appropriate age-group forms only a third of the total enrolment.

*Report of the All-India Educational Survey, Ministry of Education, Government of India, 1960.

This creates several pedagogic problems in the class and also leads to stagnation and wastage. We have to avoid such haphazard enrolments in future and strive to change the age-composition of children in Class I in such a way that about 80 per cent of the enrolment would be of the age-group 6-7 and the rest mostly of children in the ages 5-6 or 7-8. Given a conscious and intensive effort, there is no reason why we should not be able to complete it by the end of the Fourth Plan.

Once the children of the right age-group (6-7) are enrolled in Class I, we have to see that they progress annually from class to class, i.e. there is no stagnation, and that they do not leave school till they complete 14 years of age or the elementary course. This is universality of retention—the third step in the programme of compulsory education—that can be achieved only by reduction of wastage and stagnation. This aspect of the problem has been mostly neglected in the first three Plans so that wastage and stagnation are very high at present: of every 100 children who enter Class I, only about 40 reach Class V in the fifth year and only about 20 reach Class VIII in the eighth year. By the end of the Third Plan, we should have reached a stage, in most parts of the country, when about 90 per cent of the children will be going to school at some stage or the other, but the overall enrolments would still remain small because the average duration of school life of a child is only about 3 years instead of 7 or 8. The principal method of securing expansion of elementary education in the next three Plans, therefore, is not so much the enrolment of non-attending children (there will not be any left very soon), but increasing the duration of the school life of the average child from three to about seven or eight years. Our third programme for the fourth and subsequent Plans—it is a tough problem and we will have to grapple with it for 10 or 15 years—will thus be to make a deliberate and intensive effort to reduce stagnation and wastage, or increase the duration of school life of every child.

III

I have so far described the main programmes of expansion that will have to be attempted in the next fifteen years and particularly in the Fourth Plan. I shall now turn to the programmes of qualitative

improvement which have to be emphasized simultaneously in the same period. I have already referred to two of these—the enrolment of the children of the appropriate age-group in each class and the reduction of wastage and stagnation which are essentially programmes of expansion with implications for qualitative improvement as well. The third programme that I visualise is a rather unorthodox proposal, viz. that we should concentrate, in the Fourth Plan, on the qualitative improvement of middle schools (classes V-VII or VI-VIII) rather than of the primary schools (classes I-IV or I-V). In the Fourth Plan, I do not have much hope of standards being raised at the primary stage. The number of primary schools is very large, more than 500,000, their total enrolments—52 million—equal almost the entire population of the U.K.; the annual additional enrolment alone is of the order of 4 million; the paucity of financial resources is forcing us to adopt larger classes and the double-shift system would have to be introduced, almost universally, in classes I and II. In view of these conditions, no real qualitative breakthrough is possible at the primary stage unless very large investments are made, which is not practicable at present. I would, therefore, recommend that, in the Fourth Plan, a humbler programme should be attempted at the primary stage. The objective of teaching should be the three R's, good manners, healthy habits, some skill with hands, general knowledge which will include familiarity with the physical and social environment of India—her land and people—and the building up of some essential qualities like sense of responsibility, cooperativeness, discipline and patriotism. The programme should be mainly based upon the excellent suggestion of G. Ramachandran—orientation of primary schools to the basic pattern—and should emphasize activities like simple hand-work and music, dance and fine arts. This—and the conscious effort to reduce stagnation and wastage—is all that can be realistically attempted at the primary stage, and we should concentrate on it. In administration, not low aim but failure is a crime.

At the middle school stage, however, I would recommend an intensive effort to improve all existing middle schools to a prescribed minimum standard in the Fourth Plan itself and to adopt the policy of the Sargent Plan in subsequent years, i.e. to maintain all existing middle schools at a given standard of efficiency, to insist on all the new middle schools coming up to the prescribed standard'

and to strive continually to raise these standards from time to time. I make this recommendation on various grounds. The number of middle schools is comparatively small at present, about 50,000; their enrolments are still small—about 10 million; each middle school is a fairly big unit of about 200 pupils with not less than three teachers, the average being about 5; and most of these are situated in the bigger and more accessible villages. It is, therefore, still possible, within the limited resources that we have, to improve all middle schools to a reasonable standard. Moreover, as the wastage at this stage is very low (about 80 per cent of the students go up to secondary stage), our investment will give adequate return and whatever improvement we do will climb up to the secondary stage. I must also warn that it is essential to make this attempt in the Fourth Plan only. In the fifth and sixth Plans, the size of the enrolments will become very big, and the problem will again be difficult of solution. *Now* the problem is comparatively easy. *Later* it may be difficult, very, very difficult.

How do we improve the middle school stage? The first and the most important measure is to appoint a trained graduate, on the scale that we usually give him in a secondary school, as the headmaster. All other teachers should at least be matriculates and trained. In-service training should be provided for teachers. The pupil-teacher ratio should be kept low (25:1) and subject-wise teaching—as in secondary schools—may be introduced wherever possible. Greater attention should be paid to buildings and equipment; school contingencies should be increased; and a craft should be taught compulsorily in all middle schools. Standards in craft teaching should be kept high with the help of specialist teachers trained in the crafts, good tools, adequate funds and organisation.

If this programme can be put across in the Fourth Plan and maintained in subsequent Plans, a good middle school would have been established within 3-5 miles from the home of every child. The influence of this model will soon begin to percolate to primary schools as well, especially if we relate the work of each middle school integrally with that of the primary schools in its neighbourhood. In the Fifth and Sixth Plans, the enrolments in primary schools will not increase so rapidly because most of the expansion would have been put behind. It will, therefore, be possible to

concentrate on the qualitative development of primary schools at this time so that, by the end of the Sixth Plan, both primary and middle schools would have been qualitatively improved. This is probably the best strategy that will help us in providing good elementary education.

This brings me to another radical improvement needed in elementary education—the improvement of the elementary teacher. It has almost become a platitude to emphasize the crucial role of the teacher in qualitative improvement; but so very little is done about it in practice. I feel that this programme should receive the highest priority in the fourth and subsequent Plans, and that we should adopt a number of definite measures to promote it. The first and the most important of these is to improve the remuneration of the elementary teacher so that more able persons are attracted to the profession. The average annual salary of elementary school teachers was only Rs. 414 in 1946-47 and by 1960-61 it increased to Rs. 932 only. What is needed is a substantial improvement—to fix a minimum of Rs. 100 p.m. and to create a scale of pay rising to about Rs.200 in a period of about 20 years. There should also be a selection grade, about 15 per cent of the cadre, which should begin and end at some higher points. These proposals are related to the 1961 costs of living and they will have to be modified to compensate for any rise in prices that might take place from time to time. Secondly, the existing "castes" amongst elementary teachers—the teachers in government or local board or private service—should be done away with and all elementary teachers, irrespective of the management under which they may happen to serve, should have the same remuneration, old-age benefits and conditions of service. I also greatly welcome the policy to provide a social security to as many families as possible, which has now been initiated by the Government of India and I suggest that social security benefits, on the lines of those provided for the employees of the Central Government, should be extended to all elementary school teachers.

The improvement in the general education and professional training of elementary teachers is also equally important. In 1947, the bulk of the elementary teachers had only completed the middle school, only about 12 per cent were matriculates, and graduates were almost rare exceptions. During the last 16 years, the picture has considerably changed. Most of the new recruitment to the cadre

of elementary teachers now consists of matriculates—in some States exclusively so—and about 20,000 graduates are already working in elementary schools. We should immediately stop the recruitment of non-matriculates as elementary teachers; and, during the next three Plans, it should be our endeavour to increase the proportion of graduates as largely as possible—the middle schools must be largely staffed by trained graduates and the majority of posts of headmasters of the bigger primary schools should also be held by them. The duration of the training course—which is now only one year in many States—should be uniformly raised to two years; and in the Fourth Plan itself the backlog of all untrained teachers at the end of the Third Plan (about 400,000) should be cleared and the training facilities should be so increased that, by 1970-71, the annual output of trained teachers should be about equal to the annual demand for additional teachers. In-service training, which just does not exist at present, will have to be provided for all teachers on a well-organised and institutional basis so that every elementary teacher will have about 2-3 months' in-service training in every five years of service. Literature for teachers would have to be brought out on a very large scale in all the modern languages of India, and ample facilities and inducements would have to be provided to them to improve their general education and professional competence, through a variety of in-service education programmes including correspondence courses. The standard of the training institutions, which now leaves much to be desired, will also have to be improved by such measures as better scales of pay, training for teacher educators, and improvement of curricula and teaching methods, and provision of better physical facilities in terms of buildings, libraries and laboratories. By and large, it may be said that the training programmes of elementary teachers, which have been comparatively neglected so far in the post-Independence period, should be emphasized and given their due place in the next three Plans. In the Fourth Plan a great effort should be made to wipe out all the past sins of omission and commission in this sector. From this point of view, I greatly welcome the establishment of the State Institutes of Education which will make an earnest attempt to develop elementary education through programmes of training, research extension and publication. They have just come into existence and will have to be carefully nurtured in the Fourth Plan.

In the Western countries, the standards of elementary education rose through an interesting process. In the earliest stage the objectives, duration and curricula of the elementary stage were very limited, the teachers were low paid and they had meagre general education with little or no professional training. The output of persons who had received secondary or higher education was too small and they usually felt it beneath their dignity to teach in elementary schools. As time passed, however, the salaries of elementary teachers began to rise and simultaneously the output of persons who had received secondary and higher education also began to increase. Better educated persons began, therefore, to join the profession in increasing numbers; and with the availability of better teachers, the objectives and curricula of elementary education began to be upgraded and its duration began to be lengthened. Ultimately, both elementary and secondary stages were integrated into a single "school-stage"; a common scale of pay for all teachers—both elementary and secondary—was introduced and in most cases the minimum qualification for an elementary teacher was raised to a liberal arts degree with adequate professional training (or its equivalent). In India also, we must start moving in the same direction, using a rise in salaries, accompanied by an improvement in qualifications, as our principal lever of progress. If we can consistently keep up this programme for about fifteen years, developments very similar to what has already taken place in Western countries will take place in India also. That is to say, the academic and social status of elementary teachers will continually increase and the standards of elementary education will rise in proportion.

There is another important trend, now well established in Western countries, which we shall also have to adopt in India, viz. the provision of ancillary services, such as school health (including school meals), free supply of text-books, writing materials and school uniforms. The provision of these services is now essentially a responsibility of the home. But they affect the academic progress of a child and his future so materially that we do not really provide equality of educational opportunity by mere enrolment of all children into schools. What is needed is that the State should take over these residual functions of the home also so that, irrespective of his birth, every child will have an equal opportunity to grow into

adulthood. I concede the point that the provision of these services is very costly and that it will have to be gradual; and I also concede that these would rank lower in priority to the improvement of elementary teachers. I do feel, however, that we can certainly do more than what we are doing at present. The simplest and the least costly ancillary service we can introduce is to give free text-books and reading materials to every child. The existing conditions are almost pathetic and a recent survey has shown that about 40 per cent of the children in elementary schools do not have even the minimum school text-books. If we can adopt the system of keeping books and writing materials in the schools and making them available to the children during school hours, the cost of the programme would be considerably cut down and, even with these limited facilities, it will have a great effect on improvement of standards. I would, therefore, strongly recommend the implementation of this programme in the Fourth Plan. Next in order would be the provision of school uniforms. If a simple uniform is designed, the parents properly enlightened on its utility, and some help is given to the poor and needy children, it will be possible to put across this programme also without heavy costs. It will obviously be a great help in enrolling girls, particularly at the middle school stage. The programme of school meals has already started—thanks to the lead given by Madras—and about 8 million children, out of a total enrolment of about 60 million, receive either a glass of milk or a meal a day at present. But the programme depends almost pathetically on foreign gifts of foodstuffs. I do feel that we should make an effort to build up this programme on indigenous materials and to expand it gradually as resources become available. It should be our target to provide a school meal to all the poor and needy children—who would be about 30 per cent of the total enrolment—by the end of the Sixth Plan. The provision of school health services will be still more gradual and will only advance as part of the general health services being developed for the community as a whole. But even here a higher priority could be accorded to school health services that are mostly ignored at present.

There is one more programme which will help us to improve standards, viz. the classification of elementary schools. At present, we have no data to show the qualitative status of elementary schools. I, therefore, suggest that we should define norms for

elementary schools at two levels—the *minimum* level which may be designated as *D* and the *desirable* level which may be designated as *B*. Schools which are better than the desirable norms may be classified as *A*, those which fall between the desirable and minimum norms should be classified as *C* and others which fall below the minimum norms may be classified as *E*. All elementary schools should thus be annually classified, on the basis of their standards, in a five-point scale—*A*, *B*, *C*, *D* and *E*. Evaluative criteria for this purpose should be designed and handbooks prepared for using them. The first evaluation of the school should be done, on the basis of these criteria, by the teachers and it should later on be finalised by the inspecting officer in consultation with the teachers. If such a system of the annual qualitative classification of schools can be prepared and implemented, it will help materially in raising standards. We should also devise, as a supplement to this system, a programme of assistance to individual schools to overcome their shortcomings and to rise to higher levels of classification.

IV

I shall now turn to another programme of qualitative improvement, viz. basic education. As you are aware, one of the most important problems in elementary education on which a firm and definite decision will have to be taken and implemented in the next three Plans is that of Basic Education. This scheme was launched more than 25 years ago and in spite of all the support it has received from the Central and the State Governments, it has not progressed very satisfactorily. The total number of schools converted to the basic pattern is comparatively small and the rate of further conversion is so slow that it may take more than 25 years to convert all elementary schools to the basic pattern. What is worse, the quality of schools said to have been converted to the basic pattern is poor and has not justified the expectations entertained from basic education. In fact, it is the poor quality of these schools that has led Dr. Zakir Husain to say that the system of basic education, as it is practised today, is a fraud. It is, therefore, natural that public interest in the programme of basic education should have been considerably aroused especially after Dr. Zakir Husain's statement on basic education was made public. In the discussions

that have followed this statement, three trends can be discerned. One group of thinkers concludes that basic education has failed and that the entire experiment should be scrapped; another group of thinkers is as firmly convinced as ever that the system of basic education is *the* answer to the problems of universal elementary education in India and pleads for a better and more vigorous implementation of the programme. In between these two groups, there is a third group of thinkers which believes that the principles on which the programme of basic education is founded are intrinsically sound and advocates a substantial modification of the scheme before attempting its universalization in the fourth and subsequent Plans. This group of thinkers to which I belong is, however, under a moral obligation to come forward with concrete proposals regarding the manner in which the system of basic education will have to be amended in order to make it more useful and effective. It is this exercise that I now propose to attempt. It must be realised that the scheme of basic education has undergone considerable changes since it was first put forward in 1937. In fact, it has really undergone such vast changes that Shri G. Ramachandran is fully justified in asserting that it is the most dynamic educational concept in Indani educational history. It is this very dynamism that emboldens me to suggest a few more changes.

To begin with, some misunderstandings need to be removed. Some of the original features of the scheme of basic education which created a good deal of antagonism have now been modified so that there is no reason to oppose basic education on those grounds. For instance, the self-sufficiency aspect of the scheme is now firmly abandoned. All that is now expected is that a craft, if well practised, will bring in some income which should at least meet the expenditure on raw materials and maintenance of equipment. It should also leave some surplus which may be used for the benefit of the students practising the craft. It is also now agreed that basic education will not be cheaper than mere literacy education—it is good education and, therefore, it will necessarily cost more. Craft is no longer the only centre for correlation. Two other centres for correlation—the physical and social environment of the child—are also to be used as such centres. Even correlation itself is no longer as exclusively and fanatically supported as it once was in the past—it has to be attempted *naturally* to the extent possible.

There is no longer an insistence on spinning and weaving as *the* craft—the utility of other crafts, particularly agriculture, is admitted, both in theory and in practice. At one time, English was held to be contradictory to basic education and was not taught in basic schools. It is now accepted as an integral part of basic education. The use of text-books, once not allowed in basic schools, is now generally accepted; and so on. I can give some more illustrations but they seem to be hardly needed. What I would like to emphasize is that the attempt to condemn or criticize basic education on such grounds is not proper because the system has outgrown all these earlier features.

To my mind, the main contribution of basic education has been to make us realise that a system of purely academic and book-centred education which the traditional schools provide is *not* good for the country. The traditional ethos of our society is that the educated man does not work with his hand. This is a very harmful tradition because, under such a scheme, the spread of education will lead to a fall in production and an increase of poverty and will ultimately lead to a reduction in education itself. In place of this, basic education has attempted to create a new ethos that will link education to increased productivity and expects educated men also to work with their hands to produce more plentiful and better goods than those produced by uneducated persons. One thing is, therefore, certain. There is no going back now, even if we were to abandon basic education, to the earlier traditional system of book-centred elementary education. We can only go ahead with a new type of school the curricula of which will include work in some form or other.

Basic education has not worked in practice due to several reasons. Probably the most important of these is the adoption of a wrong strategy. For instance, it tried to introduce craft at the primary stage where the numbers are so large that no experiment worth the name was possible. Similarly, the idea that every teacher can teach craft has not worked well in practice so far, nor is it likely to do so in the future. I, therefore, feel that the correct strategy to universalize basic education is to adopt the orientation programme of Shri G. Ramachandran at the primary stage and to introduce the compulsory teaching of a craft at the middle school and secondary stages (or in the age-group 11-16) through properly trained and specialized

teachers. The grown up children at these stages learn a craft better and there is less of wastage.

There is another reason why the teaching of a craft should be emphasized in the age-group 11-16. I find that a child is weaned away from manual labour and is made to develop a white-collar attitude to work at the middle and secondary stages. I have made special studies of rural children from this point of view in Maharashtra and I have found that children who had completed the primary course of four or five years in the ordinary academic book-ridden traditional school were still able to work efficiently as agriculturists, barbers, tailors, shop assistants and even as casual labourers. In other words even the most bookish of education in the age-group 6-10 does not destroy the capacity of a person to adjust himself to manual work in later life and to perform it with competence. A boy who has passed through the middle or the secondary school, however, finds it very difficult to take up and adjust himself to manual work; and such adjustment becomes almost impossible when he passes through a university and gets a degree or diploma. The conclusion is, therefore, obvious. The weaning from manual work and the development of a white-collar attitude begin at the middle and secondary stages and are completed at the university stage. If, therefore, we want to change the traditional ethos of our society, to relate education to productivity and to accustom our children to manual work, we must emphasize the teaching of the craft at the middle and secondary stages and involve even university students, to the extent possible, in manual and productive work.

If this analysis is accepted, the lines on which our present programme of basic education needs amendment would be clear. I would state them briefly as follows.

(1) At the primary stage (age-group 6-10), there should be no attempt to introduce the craft and to emphasize its teaching. In classes I and II, we need not attempt anything more than the introduction of activities. This would be almost inescapable, in view of the proposal to adopt the double-shift system in these two classes, on financial grounds. In classes III to V, all that we should attempt is the introduction of handwork and simple crafts like kitchengardening. In fact, I would sum up the education at the primary stage as including: (*i*) a thorough inculcation of the basic tools of learning, reading, writing and arithmetic; (*ii*) the development of proper

habits, an education in citizenship and a programme of general information related to the social and physical environments of the child; (*iii*) plenty of activities, curricular and co-curricular; (*iv*) handwork or kitchen-gardening; and (*v*) a much greater emphasis on artistic and aesthetic activities such as painting, music and dancing than what is provided at present. In my opinion, such a programme will be all that is necessary to provide the necessary skill in the manipulation of fingers and hands, and to lay the foundation of a programme of craft education proper which is to follow at a later stage.

(2) In the middle and the secondary schools (from class VI to class X), the learning of a craft should be made compulsory. At this stage the numbers to be dealt with are small. It would, therefore, be possible to appoint special teachers for crafts, to provide the necessary equipment, to exercise proper supervision and to see that the teaching and the learning of the craft is done efficiently. The wastage can be kept to the minimum at this stage and the productivity would also be very high. There is no doubt that the proper teaching of a craft at this stage would certainly bring in return something more than raw material and the maintenance of equipment (including depreciation).

(3) At the university stage also, a good deal of camping should be introduced in which students should be required to do manual and productive work. This would continue to foster attitudes which are built up earlier at the middle and secondary stages.

It is my firm conviction that basic education has drowned itself under the uncontrollable flood of numbers by trying to introduce the teaching of craft at the primary stage. This attempt has failed —it could have hardly succeeded—and we are left with neither resources nor energy to introduce the teaching of the craft at the appropriate stages—middle and the secondary. I feel that the only way out of the present chaos is to correct this mistake and for the next ten years to concentrate on the proper teaching of a compulsory craft in all middle and secondary schools. If this programme is successfully implemented, it may be possible, at a later stage, to introduce some form of craft teaching at the primary stage also.

One more point regarding the relationship between quantity and quality. It is our experience in the first three Plans—and particularly in the third—that attempts made to pursue quantity and

quality simultaneously have failed so far mainly because the quantitative pressures are immense, and when these begin to rise the qualitative programmes are driven to the wall and the funds meant for them are mostly diverted to quantitative schemes. We must see to it that this experience is not repeated in the next three Plans.

In my opinion, the best way to save qualitative programmes from such annihilation is to put them in the centrally-sponsored programmes. At present, all educational development programmes are divided into three groups: (1) central programmes which are planned, financed and implemented by the Centre; (2) centrally-sponsored programmes which are financed exclusively by the Centre, planned by the Centre in consultation with the States, and implemented by the States; and (3) State programmes which are planned by the States, financed by the States (with some Central assistance) and implemented by the States. At present, most programmes of elementary education are in the State sector. Consequently, they are liable to all the quantitative pressures that are created at the State level and, as most Central grants are used for State plans only, these pressures also climb up to the Central level as well. All these consequences can be avoided by putting the essential programmes of qualitative improvement in the centrally-sponsored sector. As the funds for this sector are provided in the Central budget, they cannot be diverted, at the State level, to quantitative programmes. This is, therefore, an ideal device to see that programmes of qualitative improvement are given due protection from encroachment by the programmes of expansion and we should adopt it as a major strategy in all the next three Plans.

Before I close, I would like briefly to sum up the main points I have put forward in this lecture. I pointed out that, in the first three Plans, we concentrated mainly on quantity and generally neglected quality. In the next three Plans, however, we shall have to develop quantitative and qualitative programmes side by side, with an emphasis on quality so that we will be able to provide *good* education for *every* child by the end of the Sixth Five Year Plan. From the point of view of expansion, I have suggested that expansion should really become a crash programme with a high tempo; that its costs should be kept down as much as possible by adoption of devices like the double-shift system; that a conscious effort should be made to

provide equality of educational opportunity; and that the techniques of expansion adopted in the first three Plans should be changed to suit the requirements of the situation in the next three Plans. I have, for instance, suggested the revision of the educational survey of India and the provision of an elementary school within easy walking distance from the home of every child, the enrolment of children of the appropriate age-group in each class, conscious and intensive efforts to reduce wastage and stagnation, and the organisation of part-time schools for all those children in the age-group 11-13 who cannot attend school on a whole-time basis owing to economic difficulties. From the qualitative point of view, I place the highest importance on the improvement of elementary teachers: their remuneration, general education and professional training—both pre-service and in-service. I have also suggested that, from a point of view of strategy, an intensive development of all middle schools should be attempted in the Fourth Plan and that of primary schools in the Fifth and the Sixth Plans. The second programme I would like to emphasize is the provision of ancillary services: the supply of free text-books and writing materials to all children before the end of the Fourth Plan, and the provision of school uniforms and school meals to all the poor and needy children before the end of the Sixth Plan. I have also suggested the universalization of the system of basic education with certain modifications. What is even more important, I have suggested that the funds required for the qualitative improvement of elementary education should be put in the centrally-sponsored sector to protect them from diversion to programmes of quantitative expansion. If these fundamental steps are taken, the foundations would have been laid for bringing about worth while changes in the objectives of elementary education, its curricula and teaching methods. It is essentially because of the absence of these basic conditions that our efforts to improve the objectives of elementary education, introduce newer curricula and better methods of teaching have not succeeded so far. Nor will they do so unless we learn to put the first things first.

LECTURE III

Administration and Finance

I

Some of the most crucial problems of elementary education are administrative and financial, and it would be a very viable thesis to assert that most of the present ills of elementary education in India arise from two main causes: our failure to evolve a good system of administration for the elementary schools and our inability to raise the vast resources needed for a programme of providing *good* elementary education to *every* child. I, therefore, propose in this concluding lecture to deal a little in detail with these two vital issues.

II

I will begin first with administration. Here the main tragedy is that, in spite of experimentation spread over eighty years, we have not yet been able to make up our mind on two issues: (1) whether the administration of elementary education should or should not be entrusted to local bodies; and (2) if it is to be so entrusted, the proper form which this decentralization should take.

It is a curious coincidence of our educational history that whenever we took a decision to develop elementary education, we also decided almost simultaneously to transfer its administration to local bodies. For instance, the Indian Education Commission (1882) was established with the main object of suggesting the manner in which elementary education could be developed. It recommended, on the one hand, that the strenuous efforts of the Government should be directed to the development of elementary education and, on the other, that its administration should be entrusted to local bodies. It was in pursuance of its recommendations that the administration of elementary education was first transferred to local bodies between 1884 and 1889. The results were not very happy and showed that elementary education would not advance, except on the basis of an intensive State and Central effort. Lord Curzon, therefore,

introduced a new policy of Central grants and larger State initiative in 1904. The second spurt of activity came in by 1921 when education was first transferred to Indian control and almost every legislature in British India passed compulsory education laws with a view to achieving large-scale expansion and improvement of elementary education. Instead of learning from the experience of the past, the mistake of 1882 was again repeated: the local bodies were reorganised and democratized and were entrusted with an almost uncontrolled authority over elementary education. The results were again discouraging and the "reform" was severely criticised by the Hartog Report in 1928. Consequently, in some States, the powers given to local bodies over elementary education were either partially or wholly withdrawn or largely restricted. The third spurt of activity came in the post-Independence period when the Constitution singled out the provision of universal elementary education as a directive of State policy in 1950. But very soon thereafter, on the basis of the Balvantrai Mehta Committee's Report, it was also decided to transfer the administration of elementary education to Panchayati Raj institutions. The results have again been unsatisfactory and have raised a number of disquieting problems. If this policy is universally adopted—and that is what the Ministry of Community Development would like to do—the future of elementary education in India would be inseparably linked up with the future of panchayati institutions. This introduces an additional factor of uncertainty and difficulty in a situation which is already none too simple.

In my opinion, the situation has been vitiated by two rather extraneous considerations. The first is the compulsion we feel to entrust the administration of elementary education to local bodies. In the British period, this compulsion was political in origin because of the need to transfer some innocuous authority to the people themselves—the goal of "self-government." This tradition has continued to linger on even when it is no longer strictly applicable. In addition we also rationalise it at present on the basis of another slogan—decentralisation. The second compulsion is to imitate Britain, which has made us copy, a little too uncritically, their system of local self-government to the exclusion of all valuable traditions in the same field developed by other countries (e.g. France). I shall, therefore, put before you a rather unorthodox approach to the solution of this controversial and difficult problem, and I am sure

that it would be far more acceptable, provided these two historical compulsions we suffer from can be shaken off.

As an introduction to my thesis, let me explain briefly the French system of administration of elementary education. Here the most crucial point is that the teacher is a servant of the Government which undertakes to provide to every local community as many well-educated, well-trained and well-paid teachers as it needs on the basis of its local child population. The supervision of elementary schools is also an exclusive responsibility of the State. But all the non-teacher costs and programmes are a responsibility of the *commune* —in France every single local community from the smallest village of 100 people to Paris itself is a *commune*—which manages them with the help of funds raised partly through local taxation, partly through voluntary contributions of the parents and partly through grants-in-aid from the State. Functions such as construction and maintenance of buildings and playgrounds, provision of ancillary services, assistance to needy or bright children are all managed by the *communes*. The grant-in-aid from the State is given on a basis of equalisation, that is, the richer *communes* get less and the poorer ones more. The *communes* can at the most request the Government to "recall" the teacher. But they have no other statutory authority over him. In practice, however, most of the teachers hit it off very well with their local communities and so long as they do their work properly—and there can be no shrewder judge of the quality of work of a teacher than the interested parent—things run on very smoothly.

In my opinion, we would be well advised to adopt the French system of administration of elementary education under which the elementary teachers would be servants of the State Governments and all non-teacher matters would be looked after by the local communities or village panchayats. I hold the view that there is no substitute, in elementary education, for the keen interest which a parent should take in the education of his child. This does not exist very largely in our society at present, because of mass illiteracy; and we try to make up for it in other ways such as improvement of supervision over the village school. I would like to state categorically that all such attempts have failed and are doomed to failure, and that the one concrete programme on which we will have to concentrate, during the next three Plans, would be to develop mass

education and to awaken every parent to his responsibility for the education of his children. If this could be done—and there seems to be no escape from it, either in the short or in the long run—it will be necessary to associate the local community, which consists of conscious parents, with the local elementary school. We shall, therefore, have to initiate a programme of establishing village school committees—consisting partly of persons elected by the local village panchayat and partly of those nominated by the Education Departments for their interest in education—and entrust them with fairly large administrative powers over local elementary schools. In fact, they should be in charge of all matters except the control over the teacher and should look after the construction and maintenance of buildings, playgrounds, the school garden and the school farm; the provision of ancillary services to school children; the association of the local community with the school; the enforcement of compulsory attendance; the purchase and provision of equipment, celebration of school festivals, etc. To enable them to discharge these functions, they should have adequate funds at their disposal which should consist of a minimum compulsory levy made by the village panchayats, voluntary contributions donated by the people and grants-in-aid from the higher levels on the basis of equalisation. This is the one programme of democratic decentralisation which will do the largest good to elementary education and yet it is the one programme that gets ignored under the decentralisation as now carried out under the Panchayati Raj institutions. The Assam Compulsory Education Act of 1962 is the only Act in the whole of India which is based on this concept and I wish that other State Governments would follow the example.*

If this view is accepted, all the teachers should be Government servants. They will thus be equated with public servants and gain in economic and social status. The existing "castes" amongst them will disappear and a better type of recruit would be attracted to the profession, particularly from amongst women. We must realise that the quality of elementary education is just proportional to the morale of the elementary teachers and that this would be the highest in Government service and lowest in the service of a local

*For details of the manner in which local communities can be associated with elementary schools at the village level please see my paper in Appendix I.

body where every teacher is forced, willy-nilly, to become a pawn in a local political game.

If association of local bodies at any level higher than the local community is wished at all, the lowest level at which it should be attempted would be the district. The Block is too close to the village and the leadership now available at that level is of a low calibre. Consequently, the teacher's position is most weakened when control over him is vested at the block level. At the district level, there is generally a great distance between him and the members of the local body and the adverse results on his morale are not so great. Even in this case, however, I would very strongly urge that control over the services of the teacher should be vested in officers of the Government who should be loaned to local bodies as Chief Executive Officers and not in the local bodies themselves. This will ensure justice and maintenance of order. The local bodies at the district level may be given full authority over planning the development of elementary education, for raising and expending the funds required for it, and for the determination of all general policy matters. What we have tried to do in the past is to hope that the local bodies will raise larger resources for elementary education if we could bribe them with power over teachers. This is ethically wrong; it has not worked out in practice; and its administrative and educational consequences have been disastrous. The sooner we stop this experiment the better. We should really organise an S.P.C.T., i.e. Society for the Prevention of Cruelty to Teachers.

III

There are two more issues which I would like to raise in this context. The first is the need to integrate all school education—from pre-primary to secondary or higher secondary. In the past, primary education was kept apart from secondary, mainly on linguistic grounds—the former taught through the medium of the Indian languages while the latter used English as a subject of study in the first instance and, as soon as practicable, as a medium of instruction. There is no longer any need for this differentiation because the modern languages of India have now been accepted as the media of instruction at the entire school stage. Moreover, we have to remember that in all the advanced countries there is no longer

any watertight distinction between elementary and secondary education, and the entire school stage is treated as an integrated system. As I have said before, this basic reform has also been accompanied by another revolutionary development, viz. the introduction of an integrated scale of pay for both elementary and secondary teachers. Developments on these lines will have to take place in India also; and the sooner we bring them about the better. I, therefore, look forward to the evolution of an integrated system of elementary and secondary education in all parts of the country.

If this major reform is agreed to, it follows immediately that we shall have to transfer to local bodies, if we decide to do so at all, not only the administration of primary or elementary education, but also the administration of the entire field of school education: from pre-primary to secondary or higher secondary. I would like to point out that such a transfer can only be made at the district level and that it is fraught with far fewer evils than the mere transfer of primary or middle school education at the block level. I, therefore, hold the view that so long as an integrated system of school education has not been evolved and primary education continues to be administered in isolation, it would be better to adopt the French system for its administration. But as soon as an integrated system of school education is evolved; it would be desirable to transfer its administration to a specially constituted local body at the district level. Even in this transfer, there should be adequate safeguards to protect the interests of teachers and to see that their morale is not adversely affected.

Significant problems of life cannot generally be solved in isolation. The administration of elementary education is no exception to this general rule and, in my opinion, it may not be possible to find a satisfactory solution to it unless issues wider than elementary education are also taken into account. My own proposal is that we should establish a statutory Local Development Authority in each district, at the district level. It should be responsible for preparing and implementing an integrated plan of district development—a plan which will consist of three parts, family planning, economic development and educational reconstruction. At present, the labour force cohort (i.e. the boys and girls who attain the age of 16 and enter the labour force in a given year) suffers from three main defects or difficulties. The first is that its size is too large—about 2

per cent of the total population—owing to the prevalence of a large birth-rate. Secondly, its educational attainments are also very meagre—about 60 per cent of the cohort would be illiterate, about 35 per cent would have completed primary schooling and attained permanent literacy, about 25 per cent would have received more than five years of schooling and probably completed the middle school course, about 10 per cent would have completed the secondary school, and only about 1 or 2 per cent might be graduates. These are far too inadequate for the creation of a modern social order. Thirdly, the rate of economic development, especially in rural areas, is so slow that there are not enough jobs for even half of this cohort. What is worse, the little education that has been given to its personnel is so predominantly academic that there are no suitably trained persons to man the key posts in several sectors of industrialisation that are being developed at present. It should be the principal responsibility of this Local Development Authority at the district level to prepare an integrated plan of district development whose objectives will be:

(a) to reduce the birth-rate to about half in a planned programme of 10-15 years;
(b) to bring about a very rapid economic development of the local areas in such a manner that there would be a job for every young man or woman who enters the labour force and who decides to remain in the district (it may be assumed, by and large, that about 90 per cent of the children born in the district would remain within the district); and
(c) to provide such education to the young boys and girls within the district as will qualify them to participate effectively in this programme of economic development of the district.

In other words, the plan will reduce the birth-rate, develop economy and reconstruct education in such a manner that, as from a given date to be reached in 10-15 years' time, there would be a job for every person in the labour force cohort of the district and there would also be a suitably trained person available for every job needed for the economic development of the area. It is true that what I am proposing here is a much wider programme of development that will need a more comprehensive set-up for its administration. What

I want to emphasize is that some such broader vision of the problem is inescapable and that the administrative problems of elementary education can be solved satisfactorily only against such a comprehensive background.

IV

The second point to which I would like to invite your attention refers to a scientific approach to the problem of decentralisation. I find that, at present, "decentralisation" has become a slogan—a device which is intrinsically accepted to be good. It is, therefore, a fashion at present to decry centralisation and to praise decentralisation to such an extent that a person who might venture even to whisper a word against it is immediately dubbed a philistine. A little careful study will, however, show that these attitudes are unscientific and irrational. Centralisation is neither inherently good nor bad and the same may be said of decentralisation. It all depends upon what you propose to centralise or to decentralise. Huxley defined "dirt" as "matter out of place." Human dung, for instance, is "dirt" in the drawing room; but it becomes the most invaluable fertilizer in the rice field. The same analogy is applicable to centralisation or decentralisation. It would be disastrous to decentralise the defence of India and in the same way it would be equally disastrous to centralise the administration of local sanitation. The real point at issue is, therefore, something different. We must find out the proper administrative level at which a given function can be performed most economically and efficiently and assign it to that level, irrespective of the fact whether such a decision would mean "centralisation" or "decentralisation" in comparison with the existing administrative practices.

On this basis, I carried out a small experiment regarding the administration of elementary education which you might find of some interest. The first step in the experiment was to prepare as complete a list as possible of the different things that have to be done in the administration of elementary education. When I started compiling this, I found, to my surprise, that there were as many as about a hundred different functions of administration all of which fell under the general category of the "administration of elementary education." I also found that the functions included in the list covered an

extremely wide range of complexity—from such simple things as current repairs of the school building at one and to the extremely difficult problem of equalisation of educational opportunity between the different States and Union Territories at the other. The general belief is that the administration of elementary education is a very simple matter which could be entrusted to any officer or any agency. This is far from correct and one has only to conduct an investigation of this type to realise how vast and complicated an area is covered under the innocent-looking phrase "administration of elementary education." I then sent round this list to about 100 persons including educationists, administrators, teachers, etc. and requested them to give their opinion, against each function included in the list, as to the level at which it may be performed with the greatest efficiency and economy. I found that, by almost universal agreement, a large number of functions came to be assigned to the local community or the village panchayat level. This included maintenance of school buildings, construction of school buildings (unless the work was very costly and complicated), provision of equipment (unless the equipment was costly or difficult to obtain), the provision and maintenance of school playgrounds, the provision of school farms, supply of free text-books and writing materials to poor and needy children, provision of school meals, the celebration of school festivals and functions, arranging school excursions, enforcement of compulsory attendance, organising programmes to bring the school and the community together, providing residential accommodation for the teachers, elementary supervision over the local school and assistance to teachers, etc. Quite a few functions were assigned to the district level. These included planning, recruitment of personnel, supervising construction of the bigger school buildings, provision of the costlier or difficult-to-get equipment, control over the services of teachers, raising local rates for the support of elementary education, supervision over the work of the school committees, especially at the local community or village panchayat level, organisation of health services and payment of grants-in-aid to them, etc. Some further functions were assigned to the State level. These included the preparation of text-books, revision of curricula, training of teachers—pre-service and in-service—supervision over the district authorities in charge of elementary education and payment of grants to them, legislation relating to elementary education, equalising educational opportunity

between the different districts, etc. A few but very significant functions came to be allocated even to the Government of India. These included the equalisation of educational opportunity between different parts of the Union and the payment of grants-in-aid to State Governments and Union Territories for the development of elementary education. It will thus be seen that all authorities from the village level to the Government of India are involved in the administration of elementary education in some way or the other. It would, therefore, be wrong to talk of "centralisation" or "decentralisation" in this context because the administration of elementary education is ultimately the joint responsibility of all agencies. This is also, I may incidentally point out, implicit in our Constitution. Article 45 makes the "State" responsible for the provision of compulsory and free education for all children till they reach the age of 14. Article 12 defines the expression "State" to include "the Government and Parliament of India, the Governments and Legislatures of each of the States, and all local or other authorities within the territory of India or under the control of the Government of India." I would, therefore, suggest that we should, in discussing this problem, talk more about the level to which each function in the administration of elementary education is to be assigned rather than in terms of the slogans of centralisation or decentralisation.

I may also incidentally point out that, in this study, hardly any important functions came to be assigned to the Block level. The major error of the Community Development programme, therefore, has been to entrust primary education to the Block rather than to the district level.

V

I shall now turn to the financial issues. Here the first question for decision or speculation is the amount that we are likely to need or be able to raise for programmes of elementary education. Taking the *need-based* approach first, I may say that we will need a recurring expenditure of about Rs. 100 per pupil at 1961 prices. This presumes an expenditure of Rs. 60 per pupil on account of "teacher costs." (I have assumed an average annual salary of Rs. 2,000 per teacher as against Rs. 932 in 1961 and a pupil-teacher ratio of 40 in enrolment or about 35-36 in average attendance.) The balance

of Rs. 40 would be needed for the non-teacher costs—buildings, equipment, school health services, free supply of text-books and uniforms. At the end of the Third Plan, the average cost per pupil is expected to be about Rs. 33 and hence the above proposal implies trebling of the recurring cost per pupil at constant prices. With regard to the capital costs, we shall need an expenditure of Rs. 200 per child—Rs. 100 for buildings and an equal sum for equipment. As provisions will have to be made for about 120 million children for non-recurring expenditure (80 million of new enrolment in the next three Plans and 40 million out of a total enrolment of 60 million for the backlog to be cleared at the end of the Third Plan), we shall need a sum of about Rs. 24 billion spread over the next 15 years, or at the rate of about 1.6 billion per year which works out at about 15 per cent of the total recurring costs of elementary education in this period.

I must make it clear that even this huge sum is very meagre as compared to what is being spent on elementary education in the U.K. or the U.S.A. or any of the advanced countries of the West. This amount, however reasonable, seems to be ruled out from the practical point of view at our levels of national income. I would, therefore, personally prefer to hitch our wagon to a much lower star, say, Rs. 70 per child per year in 1981. This would include an average salary of Rs. 1,800 per year for the elementary teacher and a pupil-teacher ratio of 40. The non-teacher costs would also be less—about Rs. 20 per child per year so that the ancillary services would be provided only to the poor and the needy children (about 30 per cent of the total enrolment) rather than to all. The non-recurring costs on building and equipment would also be kept at the minimum—about 7 per cent of the total expenditure on elementary education, instead of about 16 per cent as in the previous estimate. Even on these conservative assumptions, the total amount required for elementary education in India by 1981 becomes fairly formidable. The latest forecast is that, in 1981, our population would increase to about 700 million and that the number of children in the age-group 6-14 would be about 140 million. Assuming 100 per cent enrolment and a cost of Rs. 70 per child per year, we shall need Rs. 9,800 million for the recurring costs of elementary education. To this, we may add about Rs. 700 million for the capital costs so that we shall need a otal expenditure of Rs. 10,500

million for elementary education in 1981. If we assume further that the total expenditure on elementary education would be about one-third of the total expenditure on education, the total educational expenditure in 1981 would be about Rs. 31,500 million or Rs. 45 per head of population. This will mean about 5 per cent of the national income, if the national dividend were to rise by then to Rs. 900 (as I hope it will) or 6 per cent of the national income if it were to rise to only Rs. 750. It is very difficult to make any definite assumption about the national dividend. But two things are very clear: unless we plan for a steep rise in the national dividend, we will not be able to put across any programme of educational reconstruction worth the name; and if we do succeed in implementing a good programme of educational reconstruction—of which what I am suggesting is an integral part—the national dividend is bound to rise very fast, faster than what we are inclined to believe at the moment on the basis of our past performance.

I shall first try to show that the level of expenditure I have thus projected is fairly reasonable. The total direct expenditure on elementary education in 1949-50—the first year for which statistics for the entire country are available—was Rs. 401 million and it rose to Rs. 1,164 million in 1961 and it is expected to increase to Rs. 2,000 million in 1965-66. In this period of 16 years, the enrolments in elementary education are expected to increase from about 21 million to about 60 million (i.e. nearly trebled) and the cost per pupil has increased from Rs. 20.7 to about Rs. 33 (i.e. increased to about one and a half times). The total increase in expenditure has, therefore, been about five times, i.e. roughly about ten per cent per year. What I am proposing is that a similar development should take place in the next fifteen years. That is to say, the expenditure should increase about five times—from Rs. 2,000 million in 1965-66 to Rs. 10,500 million in 1980-81—by increasing the enrolment from about 60 million to about 140 million (an increase to about two and a half times) and by about doubling the cost per pupil—from Rs. 33 to Rs. 70. As is to be expected, the increase in the cost per pupil is steeper in the next three Plans than in the first three because of the great emphasis on quality and the rise in enrolments is less steep because the bulk of the expansion has been put behind in the first three Plans. The effort has already been done once in the last 15 years and surely it is not too much to expect that a similar effort

would be made in the next three Plans also.

We must also remember that we spend too little on education at present and give too low a priority to elementary education. Even at the end of the Third Plan, India will be spending only Rs. 5,500 million on education, which will mean only about 3.1 per cent of the national income and only 36 per cent of this (instead of the recommended 50) would be devoted to elementary education. The advanced countries spend much more on education. For instance, the U.K. spends 5.3 per cent of her national income on education; the U.S.A. spends 6.2 per cent; Japan spends 5.9 per cent; and the U.S.S.R. spends 7 per cent of her national income on education. If education was to develop on proper lines, the Sargent Plan had come to the reluctant conclusion that India "would have to follow the practice of other countries and pay for it." India must, therefore, be prepared to spend at least 5 and preferably 6 per cent of her national income on education and devote about 33 per cent of it to elementary education. This is all that my proposals visualise and they also provide a reasonable period—fifteen years—in which to reach the goal.*

This takes me to the next issue: how and at what level is this huge amount to be raised? In this context, I would like to invite your attention to a curious paradox in the administration of elementary education: the responsibility for its day-to-day administration has to be decentralised while that of its financial support has to be centralised. The reasons for the decentralisation of the administration are the ease, economy and efficiency with which administrative responsibilities can be discharged at lower levels as I have shown earlier. On the other hand, there are two very cogent reasons for centralisation of financial support: the larger financial capacity we find at higher levels and the need for equalisation. The case for the first argument is easily established. The ability to raise revenues is least at the local level, greater at the State level and greatest at the Central level; and consequently the cause of elementary education—which needs large expenditure—has always suffered whenever the financial responsibility for it was focussed at lower levels—local or even State—and prospered when the State, and especially the Centre, took a keener interest. The case for the

*For details, please see my paper on Perspective Plan for the Development of Elementary Education in India (1966-81) in Appendix II.

second reason—equalisation—is not so obvious and needs some explanation. It will be readily granted that, in elementary education, whose chief objective is social justice, it is essential to maintain a fairly equitable standard of elementary education in all parts of the country and for children in all strata of society. But this should be done only through a centralisation of financial responsibility. For instance, the local community has to assume financial responsibility for elementary education because it is only through this support that equality of educational opportunity can be provided to all the families within the local community—rich or poor. But local communities also differ in their economic status—some are rich while others are poor. The State has, therefore, to step in and through its grant-in-aid—which should be larger to the poorer communities and smaller to the richer ones—equalise educational opportunity at the local community level. But the States also differ widely in the size and type of problems they have to face and in their ability to support education. So the Centre has to come in with equalisation grants which will ensure that an equitable standard of this basic social service would be maintained in all parts of the country. On both these counts, therefore, the responsibility for the financial support of elementary education has to be centralised.

How then do we resolve this paradox which needs "decentralisation" in administration with "centralisation" of financial responsibility? The only answer is an adequate system of grant-in-aid, from the Centre to the States and from the States to the local bodies, based on the principle of equalisation. It is mainly because of our failure to create such a system that elementary education does not make a satisfactory progress. I, therefore, feel very strongly that this problem should be examined by experts at the highest level and a satisfactory solution found for it before the Fourth Plan starts.

I would very briefly put forward my own proposals on the subject. If the total expenditure on elementary education is Rs. 100, about Rs. 70 out of this would be the salaries and allowances of teachers and Rs. 30 the non-teacher costs. At present, this proportion is 89 to 11, but in view of the proposal to provide better physical facilities and ancillary services, I am assuming this modified proportion. What I propose briefly is this system: (1) the Centre should give

grant-in-aid to States on a 50 per cent basis for all costs on teachers (including supervision and training); and (2) the States should give grants to local bodies or communities, also on a 50 per cent basis, for all non-teacher costs. In the final analysis, therefore, the Centre would bear 35 per cent, the States 50 per cent, and the local bodies 15 per cent of the total expenditure on education. A similar system exists in Japan and it is probably the best model that suits our conditions.

The advantages of this proposal are obvious. By linking Central aid to salaries and allowances of teachers, we take the best step possible: to assure a reasonable remuneration to teachers and thereby to improve the quality of teachers, and ultimately, the quality of education itself. Secondly, it will also raise the maximum of local support possible for elementary education by interesting the local community directly in the administration of non-teacher costs and programmes. We may also modify this proposal further by introducing the concept of equalisation and fixing the Central grant to States in such a way that, although the average grant for the country as a whole would be 50 per cent, the richer States would get proportionately less and the poorer States proportionately more than 50 per cent.* A similar basis of equalisation could also be easily extended to the State grants to local bodies.

VI

If the proposals made by me so far are accepted, we would have done three great things. We would have created a proper and decentralised system of administration, raised all the resources needed for elementary education—about Rs. 15 per capita of population by 1981—and evolved a proper system of grant-in-aid which would ensure that adequate amounts are available at each level of administration to enable it to discharge its responsibilities efficiently. But the car of elementary education runs on four wheels—not three—and the fourth wheel, the motivation of the human factor, is probably the most important of all. Better education does need more investment and more physical resources, no doubt. But it needs

*A self-contained paper on the subject prepared by me in collaboration with Dr. E.S. Lawler is given in Appendix III.

human efforts even more—the combined efforts of the officers of the Education Department, the teachers, the students and the parents. Today, there is a tendency for each of these human agencies to work less and less, both in quantity and in quality, and to demand more of financial investment and physical facilities on the ground that these are inescapable for better education. The fallacy of this trend is obvious and an attempt should be made in the Fourth Plan to organise a nation-wide programme of educational improvement at all stages—from the elementary to the university—by trying to motivate human agencies concerned to a more intensive and a better planned endeavour and this movement should be kept up in the two subsequent Plans as well. The basic assumptions underlying such an important programme may be stated somewhat as follows.

(1) The mainspring of the qualitative improvement of education lies in the will and effort of the people concerned with the programme of instruction; (*i*) parents or the school community, (*ii*) teachers, (*iii*) administrative and supervisory personnel, and (*iv*) students. An intelligently planned and concerted action on the part of these human agencies, continuously maintained over a sufficiently long period, will secure greater improvement in quality than any financial investment, however large, can ever hope to do. The basis of this movement should, therefore, be to motivate these human agencies to put in their best efforts, in a coordinated manner, for the improvement of education and to maintain the tempo of action so generated over a fairly long period, say, the next three Plans.

(2) Every educational institution, even within its existing resources, limited as they may be, can do a great deal to improve the quality of education it provides, through better planning and harder work. This does not mean that no attempt is to be made to improve the physical resources available to the institution. In fact, one of the primary objectives of the movement would be to try to provide better physical resources to educational institutions through the combined efforts of the State and the community. But what is emphasized is the possibility of improving the educational programme, through better planning and harder work, in spite of the deficiencies in physical resources.

(3) To obtain the best results in the improvement programme, it is essential to regard each institution as a unit, complete in itself, and to prepare a fairly long-range programme for its development through the concerted thinking of the parents, teachers and the department with the specific objective of providing the best possible programme of education to each child enrolled.

(4) The secret of the success of the improvement programme lies in two things: (a) intelligent planning; and (b) continuity of effort which should animate all activities, day after day and year after year.

(5) In a situation of the type which we now have in India, where human resources are far more plentiful than the physical ones, only those programmes can hope to succeed which under-accent the use of physical resources and stress the achievements of the human factor through harder, well-planned and continuous effort. So far, the basic approach in programmes of qualitative improvement has stressed the provision of physical facilities rather than the operation of the human factors. The improvement programme aims to reverse this process and to stress the role which the sum total of the combined efforts of teachers, supervisors, parents and students themselves can make to qualitative improvement of education.

If such a movement could be organised on an intensive basis in the next fifteen years, side by side with an increase in financial outlay, the ultimate goal will be achieved more quickly.

The Grand Old Man of India, Dadabhai Naoroji, submitted a note to the Indian Education Commission, on the 16th of September 1882, pleading for the introduction of universal elementary education in India. That dream of this great man is unrealised even to this day. I have shown, however, that, given a proper plan and an intensive effort, it is possible to translate it into reality by 1981—the end of the Sixth Plan. May I, therefore, conclude this series of lectures in the hope that, when we celebrate the centenary of this note in 1982, free and compulsory elementary education of good quality would have been provided for every child in the age-group 6-14?

APPENDIXES

APPENDIX I

Village Panchayats in Primary Education

The great importance of bringing the primary school in close association with the local community through some organisations of the type of Parent-Teacher Associations, or institutions having elected representatives of the local community such as Village Panchayats, is generally recognised and the following arguments can be advanced in support of the principle.

(*a*) The modern trend all over the world is to make the primary school a centre for the local community and to convert it, in fact, into a community school. This movement has made great progress in the Philippines and China and such integration with the community is also an essential part of the scheme of Basic Education. It is, therefore, absolutely necessary to associate the local community with the primary school, preferably through its elected representatives on the Village Panchayats.

(*b*) An association of the village school with the village community has several advantages. It becomes an important project in the social education of the adults; it is of great advantage to the school itself in improving its working; it secures additional financial resources to the support of the local school; and finally it provides several opportunities for training the students of the local school—who are the ex-community members of tomorrow—in activities of social service.

(*c*) Compulsory education can never become effective in rural areas until the local community is made to take interest in the local school and is made statutorily responsible for the enforcement of compulsory attendance.

(*d*) In several parts of India, and particularly in Madras, attempts are being made to take the school closer to the people. The general experience is that, in all areas where such experiments are being

tried, the local communities come forward to accommodate and equip the local schools and even to provide free midday meals to poor children. An experiment on these lines, especially in the field of school meals, is badly needed in Rajasthan also.

2. *Proposed Functions of the Village Panchayats.* Assuming that Village Panchayats are to be associated with the administration of local primary schools, it becomes necessary to outline their powers and duties in this field. The following is a tentative list of the functions which may be assigned to the Village Panchayats in this behalf:

(a) to assist the Panchayat Samitis in the preparation and implementation of plans for the development of primary education in their areas;
(b) to provide adequate accommodation and equipment for local primary schools;
(c) to provide for the welfare of the children attending local primary schools;
(d) to carry out the current repairs of the school building and, if directed by the Panchayat Samiti, to carry out special repairs and construct new buildings;
(e) to exercise such supervision over local primary schools as may be prescribed or may be directed by the Panchayat Samiti by a general or special order;
(f) to be responsible for the enforcement of compulsory attendance in the village in accordance with the rules and regulations prescribed for the purpose and general or special directives of the State Government and the Panchayat Samitis;
(g) subject to the funds at its disposal, to provide poor children with slates, books, clothes and other educational equipment;
(h) to be responsible for the proper management of the School Fund;
(i) to provide playgrounds and school gardens and to maintain them with the assistance of the pupils and the staff of the schools;
(j) to make provision for drinking water and other necessary amenities required by school children;

(k) to make provision, wherever possible, for midday meals to poor and under-nourished children;
(l) to make provisions for school uniforms;
(m) to celebrate school functions and to organise excursions or other social and cultural programmes in accordance with the instructions that may be issued by the Government or the Panchayat Samiti from time to time; and
(n) generally to exercise such powers and perform such duties as the Panchayat Samiti may delegate from time to time.

3. A few explanatory comments on the functions listed above are given in the paragraphs that follow.

(*a*) Function (a), as mentioned earlier, is formal and a corollary to the fact that it is the Panchayat Samitis that are statutorily responsible for the administration of primary education in the entire area of the Block. It needs no comments.

(*b*) *Provision of Accommodation and Equipment.* In respect of hiring buildings for the local schools, the cooperation of the Village Panchayats would be very necessary. It is, therefore, felt that the initiative in the matter should generally be taken by the Village Panchayats. The final authority in the matter should, however, be left to the Panchayat Samitis to whom the Village Panchayats would submit their recommendations.

With regard to equipment it is suggested that this should be the joint responsibility of Village Panchayats and the Panchayat Samitis, the initiative and a large responsibility being left to the village level. Under the present system, in which the supply of equipment is a responsibility of the department, several practical difficulties are experienced, some of the more important of which are given below.

(*i*) The District Inspector of Schools generally invites proposals from the individual schools regarding the equipment required. Owing to shortage of funds, all the demands made by individual schools can never be satisfied. The District Inspector, therefore, selects a few items only from the lists submitted by the individual schools. In doing so, however, all priorities are usually set aside and the schools very often get things which are less urgent and not others which they need very badly. Such a possibility is ruled out when the purchase of equipment is left to the school itself.

(*ii*) There is a great delay in the purchase and supply of equipment because the procedure of collecting the demands from the individual schools, preparing and finalising the consolidated demands, calling for and sanctioning tenders, manufacture or purchase of equipment and its distribution to individual schools takes a very long time—sometimes as long as 6 to 10 months. All these delays would be avoided if the authority to purchase the equipment can be delegated to the individual schools.

(*iii*) There is a general tendency on the part of the schools to use equipment supplied by the department carelessly and roughly. This trend would be greatly controlled if the local people are made to pay at least the cost of the equipment supplied to their schools.

(*iv*) Under the present arrangements, there is no local initiative for the supply of equipment to schools. Under a good administration, it should be possible to set up a healthy competition between the local communities in respect of the equipment in their schools and it should be an object of pride to a local community to display how well it is equipped. This can only happen if the responsibility to provide equipment for the local schools is transferred to the Village Panchayats which would be assisted through a suitable system of grant-in-aid.

(*v*) Even if the authority to provide equipment to the village schools is delegated to Panchayat Samitis, as proposed in the Act, all the above evils would still continue to dominate the situation. Their extent may be reduced, but they would not be eliminated altogether unless the Village Panchayats are involved in the programme.

The force of their arguments is obvious. On the other side, however, the main argument is that it would not be possible for every Village Panchayat to purchase all the equipment required for its school in the local market. It is also true that there is often a good deal of economy in bulk purchases which may be made by the Panchayat Samitis. Thirdly, there is also a fear that, if the supply of equipment is made the exclusive responsibility of Village Panchayats, the schools in poor or backward villages would suffer very greatly. On a very careful consideration of the problems, therefore, the conclusion appears to be that the responsibility for supplying equipment to the local schools should be shared between

the Village Panchayats and the Panchayat Samitis on the following lines.

(*i*) A certain minimum equipment required for each school—the list of such equipment shall be fixed by each Panchayat Samiti—should be supplied by the Panchayat Samiti itself without waiting for any popular contribution from the local people or for initiative from the Village Panchayat.

(*ii*) For all additional equipment required, the initiative should be left to the Village Panchayats which should arrange their priorities and prepare their budgets which would be sent to the Panchayat Samitis for sanction. The approval would imply that the Panchayat Samiti has sanctioned both the list of equipments to be purchased as well as the tentative budget provision made for them.

(*iii*) It should be possible for the Panchayat Samiti, while conveying its sanction, to indicate the articles which should be purchased by the Village Panchayat independently and those which may be purchased by it through the Panchayat Samiti on the ground that a bulk purchase would lead to economy.

(*iv*) The Panchayat Samiti should then prepare lists of all articles required by the village schools which are to be purchased in bulk by it on their behalf. It should then call for tenders, make purchases and supply the equipment to the schools concerned.

(*v*) The Panchayat Samiti should encourage the initiative of Village Panchayats to provide equipment for their schools by giving grant-in-aid in proportion to the local contribution.

(*c*) *Welfare of Children.* Function (c), as listed earlier, is generally accepted everywhere at this level.

(*d*) *School Buildings.* Ordinarily, the only responsibility of a Village Panchayat would be to carry out current repairs of school buildings. But in the case of efficient committees, the Panchayat Samiti may ask them to carry out special repairs and even to construct new buildings. In such cases, however, the funds required for the works should be provided by the Panchayat Samitis.

(*e*) *Supervision over the Local Schools.* Under the Bombay Primary Education Rules, 1949, the powers of supervision to be given to the Village School Committees have been specifically enumerated. A Village School Committee is expected to:

(1) visit all schools placed under its supervision at least once

a month;

(2) note whether the number of pupils in the school at the time of the visit corresponds with the number marked as present in the attendance register and report any irregularity to the Administrative Officer;

(3) report to the appropriate authorities any irregularity or unpunctuality in the matter of opening and closing of the school and the teachers' attendance;

(4) see that the school premises are repaired and kept in a good sanitary condition;

(5) supervise the expenditure of grants placed at the disposal of the head-teacher;

(6) permit the head-teacher of the local school to leave his charge in case of emergency and to grant him casual leave of absence;

(7) report the absence from school, without leave, of the head-teacher and the assistant masters;

(8) hold charge of the single-teacher schools in the event of the absence of the teacher on leave or in such other contingencies;

(9) be present at the school at the time of the visit of any officer of the Education or other departments; and

(10) be present at the time when the charge of the school is being handed over to another head-teacher.

These may be of use to Rajasthan as a basis for defining the powers of supervision over the local schools to be delegated to Village Panchayats. In this context, one significant change may also be suggested. Conditions vary greatly from village to village. In some villages, there are even high schools at present and it is possible to have some trained graduates as members of the Village Panchayats. It would, therefore, be wrong to draw up a standard list of the powers of supervision to be delegated to all Village Panchayats. It is suggested that two lists of powers of supervision to be delegated to the Village Panchayats may be drawn up. Some of these powers, which would be very simple in character, would be delegated necessarily to all the Village Panchayats. The delegation of other powers should be left to the discretion of the Panchayats who would authorise, by a resolution, individual Village Panchayats with specified powers. Larger powers of supervision should be given to more

efficient Village Panchayats and power delegated should also be withdrawn in case of misuse. This creates a healthy atmosphere of competition between the Village Panchayats.

(*f*) *Enforcement of Compulsory Attendance.* Village Panchayats should assume almost exclusive responsibility for the enforcement of compulsory education. The responsibility for the following stages in the enforcement of compulsory attendance should be placed on them: (*i*) preparation of the census of children of school-going age; (*ii*) publication of lists of non-attending children; (*iii*) issue of notices to parents of non-attending children; (*iv*) summoning of defaulting parents before them; (*v*) grant of exemption from compulsory attendance in accordance with the provisions of the Act and the rules and regulations, and the general directives issued in this behalf; (*vi*) passing of attendance orders; and (*vii*) launching of prosecution against defaulting parents.

It would be enough to state here that the staff of the school should give all assistance necessary to the Panchayat in discharging the above responsibilities and it would be a special responsibility of the Panchayat Samiti to supervise the activities of the Village Panchayat in this behalf and also to hear and dispose of appeals in a few special cases.

(*g*) *Supply of Educational Equipment to Poor Children.* Another activity which could be entrusted to the Village Panchayats is to make them responsible for the free supply of books, slates and other educational equipment, and clothes to poor children. For this purpose, they should be required to set aside some funds from their own budget and the activity may also be assisted by the Panchayat Samitis through grant-in-aid. Under the present system, it is the State department which is responsible for the supply of these articles to poor children. What happens in practice, therefore, is this: The District Officer calls for proposals from individual schools. These are then scrutinised in his office and consolidated. Then the articles required are purchased and supplied to the schools, and by the time the student gets the books the month of October or November is already reached. All this delay would be avoided and the poor students can be provided with books immediately on the opening of the schools if this authority is delegated to the Village Panchayats.

(*h*) *School Fund.* Function (h), as listed in 2, would be discussed

in detail in a later paragraph.

(*i*) Functions (i) and (j), as listed in 2, generally call for no comments but function (k), in 2, is important. In this context, attention of the State Government is invited to what is being done in the Madras State where a voluntary movement for *Annadan* has been organised by the Education Department and where about ten thousand educational institutions are providing midday meals to more than three lakhs of children on a purely voluntary basis.

(*j*) Function (l) is similar to Function (k) and needs no comments.

(*k*) Functions (m) and (n) are also important. Function (m) provides a good opportunity to bring the local community in close contact with the local school and it is necessary to exploit it as largely as possible. Function (n) provides for delegation of authority, over and above that which has been described above, by the Panchayat Samitis and to deserving and efficient Village Panchayats.

4. *Constitution of Village School Committees.* So far, the functions to be assigned at the village level were discussed. We shall now turn to the consideration of another important problem, viz. the constitution of an agency at the village level to deal with these functions.

It is technically true that these functions vest in the Village Panchayat. But it is too large a body to be saddled with this work and in practice, it would be better to constitute a separate committee of the Panchayat to deal with all these functions. This may be called the Village School Committee. Regarding its composition, it is suggested that: (1) a Village School Committee should consist of not less than four and not more than eight persons who are above 21 years of age and who ordinarily reside in the village. (2) The entire Committee should be elected by the Village Panchayat. (3) Half the number of members of the Committee should be members of the Panchayat and the remainder persons interested in education. (4) There need be no educational qualifications prescribed for the members of the Village Panchayat to be elected on the Committee. But the other persons to be elected should have at least passed primary standard V. In special cases, if a person so elected does not have this minimum qualification, his election to the Committee would be subject to the approval of the Panchayat Samiti. (5) As far as possible, every committee should include a woman and/or a person of the backward classes. (6) The jurisdiction of the Committee should be co-extensive with the Panchayat and should include all schools within the area of the Panchayat. (7) The Committee should elect its own chairman. (8) The term of office of the Committee should be co-extensive with that of the Panchayat.

5. *The School Fund.* It is also recommended that every Village Panchayat should constitute a separate school fund which would be at the disposal of the Village School Committee and whose primary object would be to enable the committee to discharge its responsibilities in respect of primary education. This fund should consist of: contribution of the Village Panchayat; voluntary contributions raised from the local community; all income from the school farm or craft; fines realised in the locality under the Compulsory Education Act; such other miscellaneous items as may be prescribed from time to time and grant-in-aid from the Panchayat Samiti. A few explanatory comments on the above items of income are given below.

Contribution from the Village Panchayat. At present, the Village Panchayat is not expected to make any contribution for the local board. This is wrong in principle. There is no difference between a municipality and a Village Panchayat in the sense that both are local governments for their communities and both of them should be intimately associated with their local schools, and made to pay for them. It is true that the resources of the Village Panchayats are smaller; but this difficulty can be easily overcome by prescribing a similar rate of contribution or by reducing the responsibility of the Village School Committee, or by providing a larger grant-in-aid or by any suitable combination of one or more of these methods. It is, therefore, proposed that every Village Panchayat should be required to make a minimum statutory contribution for the support of the local primary school or schools, just as the municipalities are being compelled in most parts of India to support the primary schools within their areas. The rate of contribution, however, should be smaller—two per cent for all Village Panchayats whose total annual income (exclusive of Government grants) is less than Rs. 5,000, three per cent for those whose income (exclusive of Government grants) is more than Rs. 5,000 but less than Rs. 10,000, and four per cent in all the cases.

Voluntary Contributions from the Local Community. It is also suggested that every Village School Committee should be encouraged to collect voluntary contributions and donations from the local public. A system of this type has existed in France since 1849 and it is now a national programme of great importance in the sense that every school maintains a "School Chest"; under this scheme, every school maintains a "chest" or a fund to which the local public makes voluntary contributions in cash or kind. In order to encourage such contributions government makes a definite grant-in-aid to every school chest at a fixed proportion of the total amount collected locally. The whole amount, including the government grant-in-aid, is placed at the disposal of the local school committee for expenditure in connection with the school. It is usually utilised for such items as providing the school with equipment, managing the school gardens, taking the children out for excursion, providing extra-curricular activities, providing free meals or clothes to poor children, etc. Such an institution deserves to be encouraged in our rural areas also. It is, therefore, suggested that: (a) the School Chest scheme should be adopted forthwith; (b) every Village School Committee should be authorised to collect money for the local school; (c) the Panchayat Samitis should give a grant to the School Chest at a prescribed percentage of the amount collected locally; and (d) the whole amount thus collected should be available for expenditure in connection with specified items connected with the local school.

Income from Farm and Craft. It is also proposed that all earnings of a school from the school farm and/or the school craft, should also be credited to the Fund and should be available for expenditure on the local school.

Fines under the Compulsory Education Act. It would be desirable to give the receipts on account of fines under the Compulsory Education Act to the local school itself. This will create greater interest in the enforcement of compulsory attendance.

Grant-in-Aid. It would be an important duty of the Panchayat Samiti to give grant-in-aid to the Village Panchayats in order to enable them to discharge their responsibilities properly. These grants would ordinarily be proportional to local contributions. But in order to help backward and poor villages, the proportion of the grant-in-aid should vary from one type of the village to another,

the richer village getting a lower percentage and the poorer village getting a higher one.

It is felt that if the steps outlined above are taken, it would be possible to stimulate adequate interest in primary schools as well as to evoke the largest possible local support for the advancement of primary education.

APPENDIX II

A Perspective Plan for the Development of Elementary Education in India

The people of India have been demanding an early introduction of universal, free and compulsory education for all children till the age of 14; but the unfortunate position today is that it has not been possible for us to adhere to any schedule for reaching this goal. There is, therefore, a great public demand to the effect that the Government of India and the States should prepare a phased programme of expansion and improvement of elementary education with the ultimate object of providing free and compulsory education for all children as early as possible. Unless such a programme is carefully drawn up, it will not be possible to outline the development of elementary education that could be attempted even in the Fourth Five Year Plan for which preparations are now under way. In this chapter, therefore, it is proposed to discuss the broad outline of a possible programme for the development of elementary education in India during the next fifteen years.

Magnitude of the Task. The total population of India, according to the census of 1961, was 439 million and it is increasing at present at about 2.2 per cent per annum. Various estimates of the growth of population in India during the next twenty years have been made and, depending upon their underlying assumptions, they show considerable variation. But probably one which might come nearest the truth is that based on the following two assumptions: (1) the expectation of life at birth in 1961 to accord with death-rate of about 18 per thousand (47.5 years) which would increase by 0.75 year annually up to 1966 and thereafter at 0.5 year annually up to 1976; and (2) the present general fertility rate to continue up to 1971 and thereafter to fall to some extent owing to the spread of contraceptive techniques (a fall of 5 per cent centred on the

mid-point of the quinquennium 1971-76 may be expected). On these assumptions, the population of India would be 491.54 million in 1966, 554.67 million in 1971, and 625.16 million in 1976. The continuation of this projection further would give a population of 694 million in 1981. It is true that this is one of the "higher-side" estimates. But our past experience has been that the actual census counts of population are always higher than the highest estimates. It may be that even these estimates ultimately prove to be on the low side; but we shall assume them as the basis of this Plan as the best data available at present.

As in all other developing countries, the proportion of children to the total population in India is much larger than in the advanced countries of the world. Consider, for example, the following estimates.

TABLE I

ESTIMATED NUMBER OF CHILDREN IN SOME SELECTED COUNTRIES

(In thousands)

Country and year of statistics	*Age-group*	*Total population*	*Number of children in the age-group*	*Percentage of (4) to (3)*
(1)	(2)	(3)	(4)	(5)
Sweden (1958)	5-14	7,415	1,196	16.1
U.K. (b) (1958)	5-14	45,244	6,933(a)	15.3
India (1961)	6-14	438,000	83,780	19.1

N.B. The population data has been taken from *U.N. Statistical Yearbook, 1959.*

The population in the age-group 5-14 has been taken from UNESCO: *Basic Facts and Figures, 1960.*

(a) Data for 1957.

(b) Data for England and Wales only.

It will be seen that India has proportionately more children in the age-group 6-14 than the advanced countries have in the large age-group of 5-14. The paradox of the situation, therefore, is that the richer countries have more resources and fewer children to educate, while the poorer countries have fewer resources and a

larger number of children to be educated. This uneven balance between the resources available and the number of children to be educated diminishes as the birth-rate falls and the general economic conditions improve; and a similar development will take place ultimately in India also. But in the immediate future, we should proceed on the assumption that we will have to provide for the elementary education of a proportionately greater number of children with comparatively smaller financial resources.

Estimates have also been made of the total number of children in the age-group 6-14 in India during the next fifteen years, and these are given in the following table.

TABLE II

ESTIMATED NUMBER OF CHILDREN IN THE AGE-GROUP 6-14 (1961-76)

Year	*Age-group 6-11*		*Age-group 11-14*		*Age-group 6-14*	
	Number of children (in millions)	*Percentage to total population*	*Total number of children (in millions)*	*Percentage to total population*	*Total number of children (in millions)*	*Percentage to total population*
1961	56.14	12.8	27.64	6.3	83.78	19.1
1966	64.74	13.2	34.14	6.9	98.88	20.1
1971	73.35	13.2	39.00	7.0	112.35	20.2
1976	80.33	12.8	42.67	6.8	123.00	19.6

At the end of the Third Five Year Plan, the total enrolment in classes I-V (which is assumed to correspond to the age-group 6-11) is expected to be 49.64 million, and that in classes VI-VIII (which is assumed to correspond to the age-group 11-14) is estimated to be 9.75 million. The total enrolment in classes I-VIII, at the end of the Third Five Year Plan, would thus be 59.39 million which would roughly correspond to about 61.1 per cent of the total population in the age-group 6-14. Since these targets are likely to be exceeded, we may assume in round figures that the total enrolment in classes I-VIII at the end of the Third Five Year Plan would be 60 millions, or 62 per cent of the total population in the age-group 6-14.

The magnitude of the task that will have to be attempted can be seen from the difference between the enrolment anticipated at the end of the Third Five Year Plan and the total number of children that will have to be ultimately enrolled, depending upon the target date for reaching the objective. If free and compulsory education is to be provided to all children in the age-group 6-14 by 1971, the additional enrolment during the Fourth Five Year Plan would have to be 52.35 million or roughly about 10.47 million per year, as against the highest increase of about 4 million we have been able to achieve so far. If the target date for reaching this goal is to be postponed to 1976, the additional enrolment during the Fourth and Fifth Five Year Plans would have to be 63 million. This works out at an annual increase of 6.3 million, which is about 60 per cent higher than the highest annual increase we have been able to achieve in the past. If this date were to be still further postponed to 1981, the additional enrolment during the Fourth, Fifth and the Sixth Plans would have to be about 81 millions which works out at an annual increase of 5.4 million. Lastly if one were to assume, as proposed by the Sargent Plan, that this target would be reached by 1985, the total additional enrolment during the Fourth, Fifth, Sixth and the Seventh Plans will have to be about 105 millions which works out at an annual increase of 5.2 million. The most difficult and the most ambitious target would be to enrol all children in the age-group 6-14 by 1971 and comparatively the least difficult would be to reach the goal by 1985. The target date of 1976 stands midway between these two extreme positions. The planners of education in India will, therefore, have to decide on one or the other of these target dates for preparing a phased programme for the development of elementary education in the country.

Decision on Targets. Which of these three target dates should be selected? The decision depends upon a number of important considerations. First is the question of overall *priority.* The conviction is strongly held by some people that the provision of universal and free elementary education to all children is essentially a programme of social justice, of providing equality of educational opportunity and of laying the basic foundations of democracy. They would, therefore, accord this programme an overriding priority over any other programme in education and over several other programmes in the Plan as a whole. These thinkers

would, therefore, prefer to provide free and compulsory education for all children in the age-group 6-14 by 1971, or if that were not possible, by 1975 at the latest. On the other hand, there are some who believe that other sectors of education, e.g. technical education, secondary education, higher education, need a higher priority and that the programme of expanding elementary education could be slowed down after an enrolment of about 70-75 per cent in the age-group 6-11 is reached. As this position would be reached at the end of the Third Five Year Plan, they argue that we need not emphasize further expansion of elementary education during the Fourth and Fifth Five Year Plans. According to them, it would be better to realise the goal of providing free and compulsory education for all children in the age-group of 6-14 by 1985, as recommended by the Sargent Plan.

The controversy about *quality versus quantity* also comes into the picture at this stage. The earlier we place the target date, the larger will be the number of additional children to be enrolled every year and the less will be the available funds for qualitative improvement of elementary education. These thinkers, who emphasize quality, therefore, would prefer to postpone that target date while those who emphasize quantity would tend to place it nearer.

Another important consideration is *financial.* Expansion and improvement of elementary education is very costly and increases the recurring liability to the Government to a considerable extent. In fixing the target date for the provision of free and compulsory education for all children in the age-group 6-14, therefore, one has also to take into consideration the large finances involved. For instance, if the target date is fixed as 1971, we will have to enrol 52 million additional children during the Fourth Plan and the minimum cost on this account would be Rs. 6,240 million during the Plan period. If it is remembered that the total allocation for elementary education during the Third Five Year Plan period was only Rs. 2,090 million, the magnitude of the task becomes evident. On the other hand, if the target date is fixed later, the additional expenditure to be incurred on the development of elementary education becomes less, and more manageable. After all is said and done, the resources likely to be available for educational development during the Fourth and Fifth Five Year Plans will have to meet several conflicting demands on them from a number of other programmes. The development of elementary education, therefore, is not likely to get an allocation of resources which might make it possible to bring the target date very near. Besides, any overriding priority given to elementary education is likely to distort, not only the deserving priorities of other sectors in education, but also the due priorities of other important sectors in social or economic development. This may not also be in the best interests of the country. All things considered, it may be desirable, on financial grounds, to follow the middle course in preparing programmes for the development of elementary education.

It must also be pointed out that even if the highest priority is accorded to the development of elementary education and even if all the resources necessary are made available, it may still not be possible to enrol every child in the age-group 6-14 by 1971 or even by 1975. This is because the problem of universal education is not merely financial. A number of *social, cultural and economic considerations* are involved and some of these have been indicated below.

(*a*) *Education of Girls.* In the expansion achieved so far in the age-group 6-11, it was the enrolment of boys with which we were mostly concerned. By 1966, the vast majority of the boys in this age-group would have been enrolled in schools and, in later years, the additional enrolment to be attempted will consist largely of girls. For instance, in the additional enrolment expected between 1966 and 1975 on the basis of 100 per cent enrolment in the age-group of 6-14, the number of boys would be about 26 million and the number of girls would be about 38 million. This is a far more difficult problem and would call for (1) an intensive educative propaganda to overcome traditional resistance to the education of girls and to popularise co-education as well, and (2) the preparation and employment of women teachers in far larger numbers, especially in rural areas. The dimension, in this case, is more social than financial.

(*b*) *Expansion in Backward States.* So far, the largest contribution to the total expansion of education at the elementary stage was made by the more advanced States. By 1966, those would have come much nearer to the ultimate goal. In later years, therefore, the advanced States will play a minor role in the programme and the main burden of expansion will fall on the less

advanced States. For instance, about 29 per cent of the non-attending children in the country as a whole will be in U.P. alone at the end of the Third Plan. This single State will, therefore, have to put in an effort equal to one-fourth of the effort in the country as a whole. A major part of the expansion contemplated beyond 1966 will thus have to be attempted in the less advanced States which are poorer and obviously less equipped for the task. The problem here assumes another dimension altogether and raises difficult and complex issues regarding the responsibility of the Government of India for securing equalisation of educational opportunity in all parts of the country and of special Central assistance to backward States.

(*c*) *Expansion Among Poorer and More Backward Sections of Society.* The expansion of elementary education achieved so far has in the main covered cities, towns and the bigger habitations. In future, we shall be called upon to expand education in difficult or inaccessible forest areas, among the scheduled castes and scheduled tribes, among the poorest or destitute sections of society, in small hamlets of less than 200 persons and in several difficult situations such as those involved in educating the nomads. We shall be called upon to face the problem of handicapped or delinquent children on an appreciable scale. In all those areas, the problem ceases to be purely financial and several other factors—social, economic and human—come into play. Programmes like midday meals, free uniform and free text-books will have to be given greater weight if children from the poorest and almost destitute classes are to be enrolled.

(*d*) *Expansion in Classes VI-VIII or in the Age-group 11-14.* So far, the bulk of the expansion that has taken place was in classes I-V or in the age-group 6-11. By 1961, about 61 per cent of the children in the age-group 6-11 had been enrolled and by 1966, this enrolment will rise to 80 per cent. It will not be very difficult to raise this enrolment to 90 per cent by 1971 and to 100 per cent by 1975. The main task to be attempted between 1966 and 1975 is to increase the enrolment in classes VI-VIII. This was 9 per cent in 1946-47. It rose to 13 per cent in 1950-51 to 17 per cent in 1955-56 to 23 per cent in 1960-61, and is expected to rise to 29 per cent in 1965-66. On this basis, it may rise to about 50 per cent at the most in 1975. To increase this enrolment from 30 per cent in 1966 to 100 per cent in 1971 does not appear feasible and to do so even by 1975 will require large-scale effort. Here again the problem ceases to be merely financial. Social, administrative and educational issues come to the forefront and the main problems to be tackled are two. (1) How can we reduce wastage and stagnation and see that most of the children who enter class I also reach class VIII? (2) How can we enrol all the children in the age-group of 11-14 when they are wanted at home for some work or the other?

(*e*) *Qualitative Improvement.* So far, the programme has been mainly quantitative; the question of qualitative improvement was regarded secondary. In future, a stage will soon have been reached where no further expansion is possible (except that due to sheer increase in population) unless the power of the schools to attract and hold the children is substantially increased. This implies that qualitative improvement will be necessary as a means of increasing enrolment. Quality is an end in itself, and the usual assumption is that qualitative programmes would be taken up after the period of quantitative expansion is over. But at the stage which will be reached in 1966, qualitative and quantitative programmes will have to interpenetrate. The problem again ceases to be purely financial and will have to be tackled mainly in terms of the preparation and employment of thousands of competent, devoted and enthusiastic teachers who are willing to give their best to the community.

Keeping these considerations in mind, let us examine the pros and cons of the possible target dates for fulfilling the directive of Article 45 of the Constitution.

(1) *Assumption No.I: Fulfilling the Directive of Article 45 of the Constitution by 1985.* The Report of the Central Advisory Board of Education on "Post-War Educational Development in India" (popularly known as the Sargent Plan) had estimated that a period of about forty years would be needed to provide universal education for all children in the age-group 6-14. As the Sargent Report was finalised in 1944, it may be assumed that, according to the Plan, the target could be reached by 1985. On this assumption, possible targets for 1975 would be (i) enrolment of 100 per cent of children in the age-group 6-11, and (ii) enrolment of 50 per cent of children in the age-group 11-14. This will mean that the total number of children to be enrolled in schools by 1975 would be a 100 million—80 million in the age-group 6-11 and 20 million in the age-group 11-14. In

view of the fact that the total enrolment at the elementary stage would be only 60 million in 1965-66 (50 million in the age-group 6-11 and 10 million in the age-group 11-14), this will imply an additional enrolment of 40 million children (30 million in the age-group 6-11 and 10 million in the age-group 11-14) in a period of ten years. This will require an annual increase at the rate of 4 million places in classes I to VIII which is exactly the rate of expansion that would be reached by the end of the Third Plan. In other words, the fulfilment of the Constitutional Directive by 1985 would only call for the stabilisation of the rate of expansion reached by the end of the Third Plan for a period of ten years. The proposal has the additional advantage of providing for a period of time needed for consolidation and making available a part of the resources for qualitative improvement. There is a good deal in the proposal to commend itself.

(2) *Assumption No. II: Fulfilling the Directive of Article 45 of the Constitution by 1980.* An alternative assumption for the target will be to fulfil the directive of Article 45 of the Constitution by 1980. On this assumption, it would be necessary to enrol, by 1975, 100 per cent of the children in the age-group 6-11 and 75 per cent of the children in the age-group 11-14. This will mean a total enrolment of 100 million children by 1975 (70 million in the age-group 6-11 and 30 million in the age-group 11-14). This will involve an additional provision of 50 million seats at the elementary stage in a period of ten years or an increase of 5 million seats per year. This is only a little more than the estimated rate of expansion at the end of the Third Plan. Under this proposal, the funds needed for expansion programmes would be much larger than under Assumption No. I and the funds available for programmes of qualitative improvement would be correspondingly less. It will, therefore, call for a much larger effort than that involved in Assumption I. Given such an effort, it is quite possible to work out this target, especially if the system of part-time education is adopted on a large scale for the age-group 11-14.

(3) *Assumption No. III: Fulfilling the Directive of Article 45 of the Constitution by 1975.* A more ambitious programme would be to try to provide free and compulsory education for all children in the age-group 6-14 by 1975. Under this assumption, the total provision of school places in classes I to VIII would have to be

increased to about 120 million (which is the anticipated population in the age-group 6-14 by 1975) in a period of ten years following the Third Plan. This involves an increase in the available school places in classes I to VIII of 60 million in a period of ten years, or at the average rate of 6 million places per annum. The achievement of this target will, of course, involve a stupendous effort. Its main advantage is that the country would have fulfilled a pledge given to the people as early as 1950. It will mean a very steep increase in outlays and slowing down the programmes for qualitative improvement.

(4) *Assumption No. IV: Fulfilling the Directive of Article 45 of the Constitution by 1971.* In view of the importance of the problem as well as of the keen desire of the people, a question is often asked whether it would be possible to provide free and compulsory education to all children in the age-group 6-14 by 1971. With the limitation of resources, this does not appear to be a feasible target. The population of children in the age-group 6-14 by 1971 will be 112 million and if free and compulsory education is to be provided to all of them, we would have to provide at least 110 million school places in classes I-VIII by 1971. In view of the fact that the total number of school places in classes I-VIII will be only 60 million by 1966, we shall have to increase the facilities for elementary education by 52 million places which is about $2\frac{1}{2}$ times the rate of expansion that would be reached during the Third Plan. Even if the proposition were administratively practicable, the expenditure on elementary education would increase so rapidly during this period of five years that it would immediately throw out of gear the development of education in the other fields. This may not be in the larger interests of the country. All things considered, the possibility of fulfilling the directive of Article 45 of the Constitution by 1971 or, in fact, by any date prior to 1975 has to be ruled out.

It will, therefore, be seen that Assumption IV is totally ruled out and that Assumption I is the most feasible target to aim at. Assumption II is a little more difficult, but still practicable; and Assumption III, which is most likely to appeal to the popular sentiment, is possible only through a supreme effort and at an immense cost. In a further discussion of the problem, therefore, we will consider the implications of all these three assumptions.

Phases of the Programme. In planning a programme of phased development for providing free and compulsory education for all children in the age-group 6-14 in India, a study of the history of the development of elementary education in the advanced countries of the world is of great use. It shows that a country generally advances towards the goal of universal education in three distinct phases.

(*a*) *Universality of Provision.* The first phase of the programme is to provide an elementary school within easy walking distance from the home of every child. This enables every parent who so desires to send his children to school. This phase is the simplest, although it has its own problems.

(*b*) *Universality of Enrolment.* It must be remembered that expansion of elementary education ultimately consists of two processes—to enrol all children of the prescribed age (i.e. 6-7 in India) in class I and then to retain them at school till they complete the prescribed age (14 years) or course (classes I-VIII). The first of these processes necessitates the formation of the right initial cohort in class I. Here the ultimate target is to enrol *every* child of 6-7 in class I so that the vast majority of children in class I (say, about 90 per cent) comes to consist of children of the age-group 6-7 only. The remaining seats will be taken up by a few children of the lower age-group who may be permitted to join under certain circumstances, and of a few older children in the age-group 7-8 who may have escaped enrolment when they were 6 plus. As soon as every child, or almost every child, in the age-group 6-7 is enrolled in class I (or in any higher class to which he may be found fit for admission), the target of universal enrolment may be said to have been reached.

(*c*) *Universality of Retention.* The third phase of the programme of universal education is to see that every child, who is enrolled in a school, does not leave it until the entire elementary course of education is completed or the prescribed upper age-limit of 14 is attained. When children come from well-to-do families or families which appreciate the value of education, there is no problem of premature withdrawal. The average duration of schooling for every child in such a situation is equal to the duration of the entire elementary course, i.e. eight years. But when children from poorer communities or from families which do not appreciate the value of education to the extent necessary are enrolled in schools, there

is a strong parental tendency to withdraw them as soon as they become old enough to assist in some work in the family or outside it and thereby earn some money, however little, towards their maintenance. It is due to this premature withdrawal that the average duration of school life for these children is so short—between two and four years only. The lengthening of this average duration to seven or eight years is the main problem to be tackled at this stage, which will result in the reduction of wastage.

The first of these three phases would have been almost completed at the end of the Third Five Year Plan; and even if some of the work necessary for completing this phase is left unfinished, it could be easily completed in the Fourth Five Year Plan. With regard to the second phase also, a good deal of ground would have been covered at the end of the Third Five Year Plan and the task left over for future years would be in the sector of the enrolment of girls, children from the backward classes and from very poor families, and of handicapped children. The main task to be attempted beyond the Third Five Year Plan, therefore, is the third phase, viz. the reduction of wastage and stagnation. As was pointed out earlier, out of every 100 children that enter class I, only about 20 reach class VIII at present. This number will have to be increased at least to 80 and this is essentially a qualitative programme on which the greatest concentration of effort will have to be made in the Fourth and the Fifth Five Year Plan.

The Problem of Teachers. If this shift to qualitative improvement is to take place in the Fourth Five Year Plan and is to be continuously emphasized during the next 10-15 years, the improvement of the elementary school teacher will have to be given the highest priority. The teacher holds the key position in education and it is upon his competence and sense of duty that the standards of education will ultimately depend. We will, therefore, have to concentrate upon improving the general education and professional training of elementary school teachers, and provide them with satisfactory conditions of service essential to efficient functioning.

A. General Education. What should be the minimum general education expected of elementary school teachers? The policy recommended by the Government of India is that the matriculation should be the minimum qualification in general education for elementary school teachers. By and large, this recommendation

has been accepted by the State Governments and during the last twelve years, the percentage of matriculate teachers at the elementary stage is increasing steadily: it was 12.59 in 1949-50 and is estimated to have increased to 39 in 1960-61. The recruitment of matriculate teachers, however, is increasing still more rapidly. In some States, only matriculate teachers are recruited; in some others, preference is given to matriculates in spite of a lower minimum qualification prescribed; and it is only in a few States that a proportion of the total posts available is reserved for non-matriculate teachers as a measure of economy (non-matriculate teacher has a lower scale of pay). In 1950-51, the total number of matriculates recruited was about 54 per cent of the total recruitment. At present, about 75 per cent of all new recruitment is that of matriculates only. In fact, the average elementary school teacher now recruited is a matriculate except in three cases: (1) women teachers, especially for rural areas; (2) teachers for tribal areas; and (3) teachers for posts reserved for non-matriculates. Since an improvement in the general education of elementary teachers is imperative, it is suggested that the State Governments should fix a deadline beyond which the recruitment of non-matriculate teachers should be stopped altogether, and that this deadline should not go beyond 1971 in any area. In the meantime, intensive efforts should be made to prepare women teachers or teachers for tribal areas in sufficient numbers in order that the need to relax the minimum qualifications prescribed does not, as far as possible, arise.

There is also another point to be remembered in this context. The number of graduate teachers working at the elementary stage has been consistently increasing. In 1949-50, the total number of graduates working at the elementary stage was only 5,514; but by 1960-61, it is estimated to have increased to about 20,000. Owing to the rapid expansion of collegiate education on the one hand and the improvement of scales of pay of elementary teachers on the other, it is expected that the employment of graduates at the elementary stage will increase still more rapidly during the next 10-15 years. This is to be welcomed and encouraged as an important means of raising standards. It is, therefore, suggested that every encouragement should be given for the employment of trained graduates at the elementary stage and that the target to be reached by 1980 should be that every primary school with more than 200 children should have a trained graduate as its headmaster and that every primary school with more than 500 children should have the headmaster as well as the assistant headmaster as trained graduates. At the middle school stage, the headmasters should necessarily be graduates and as large a proportion of the other teachers as possible, not being less than 25 per cent, should also be graduates.

If one were to consider the expansion of general secondary and collegiate education that is likely to take place during the next 10-15 years, the output of matriculates and graduates would certainly be large enough to provide the necessary number of teachers required to implement the recommendations made above. The only action that needs to be taken to achieve these targets is to bring about a substantial improvement in the remuneration of elementary teachers so as to attract them to the profession.

B. Professional Training. The expansion and improvement of the existing programmes of professional training of elementary teachers is another programme on which great emphasis will have to be placed during the Fourth Five Year Plan. This problem has been recently examined by the Study Group on the Training of Elementary Teachers in India that has made the following significant recommendations.

(1) There is at present a great backlog of untrained teachers in almost all the States. It has been estimated that, by 1965-66, the total number of elementary teachers in position would be 1.626 million and that as many as 406,500 of these would be untrained. Each State should, therefore, fix a target date, not later than 1971 in any case, by which this backlog would be cleared. This could be done by providing: (*a*) a short refresher in-service training course of about 5-6 months for those teachers who are above 35 years of age and have already put in about 10-15 years of service; (*b*) by providing a short pre-service training programme of one year only to all teachers who are below the age of 35 and have put in not less than 5 years of service; and (*c*) by providing full-time training only to those untrained teachers who are below 35 years of age and have not put in more than five years of service. The costs and the time required for clearing the backlog would thus be reduced considerably without affecting efficiency.

(2) Each State should estimate its own requirements of additional teachers during the next 10-15 years as accurately as possible. In

preparing these estimates, note should be taken not only of the additional teachers required for new enrolment, but also of the teachers required for replacement in the existing ranks due to such causes as deaths or desertions. The training facilities in each State should then be so expanded as to create an annual output which would meet the additional demand for teachers completely. The necessity to recruit untrained teachers would thus disappear and one of the major causes which now lead to inefficiency in teaching would be eliminated.

(3) The quality of training programmes will have to be considerably improved by adoption of the following measures amongst others.

(*a*) The duration of the training course should be increased to a minimum of two years for matriculates and for those who have passed the higher secondary course. It should be at least three years (which may be broken up into two periods of two years and one year each) for non-matriculates. For graduates joining the elementary schools, a course of one year's duration specially oriented to teaching at the elementary stage should do.

(*b*) The status of the average training institutions for elementary teachers is very low at present, such institutions being generally equated to secondary schools. Although this might have had some justification when the average elementary school teacher was only middle-passed, it is an anachronism now when the vast majority of recruits to the profession are matriculates. It is necessary to upgrade these institutions to the status of under-graduate institutions. The reform will make it possible to give better scales of pay to teacher educators and to improve their academic and professional qualifications.

(*c*) The average teacher educator of today has been trained in an institution meant essentially for a secondary school and, more often than not, his previous background and experience have also been those of secondary education. That there is no programme for his in-service education makes him even less suitable for his job. There is a real need for courses of pre-service training for teacher educators for elementary teacher training institutions to be organised at the M.Ed. and B.Ed. levels. In addition to these, there have to be special arrangements in every State for providing in-service training to teacher educators, at the rate of about three months' in-service training to every five years of service.

(*d*) The existing curricula have to be revised and more appropriate teaching methods have to be developed.

(*e*) The physical plant of the existing training institutions leaves a good deal to be desired. It is necessary to prepare a blueprint of a model training institution for elementary teachers and to indicate its needs in terms of land, buildings, hostels, class-rooms, staff quarters, library, laboratory, teaching equipment, craft sheds and equipment for craft teaching, etc. An attempt has to be made to see that all the existing institutions are provided with a good physical plant on the lines of this blueprint within a prescribed period. Care is also to be taken to see that all the new institutions that are proposed to be established conform to the prescribed specifications. Any economy to water down the standard specifications of training institutions will prove false in the long run and seriously affect the quality of education in elementary schools.

(*f*) Training of teachers can never be developed in isolation. It has to be integrated with educational research in the development of improved techniques of teaching and the provision of extension services to elementary schools. No attempt has been made so far in this direction. It is vital to develop research and extension wings in training institutions.

C. Remuneration and Other Service Conditions. The remuneration of teachers will also have to be considerably improved. At the end of the Third Five Year Plan, the average annual salary of an elementary school teacher is expected to be Rs. 1,000. It may be pointed out that this is the overall average, with considerable variations from State to State. If teachers of a better quality are to be obtained and standards of their general education and professional training have to be improved as indicated above, the existing scales of pay will have to be considerably upgraded. A reasonable target to be adopted in this regard would be to double the average salary by 1981. This increase is a little higher than the increase that would take place in the national income per capita; but it would make up for the comparatively low salaries that are being paid to elementary teachers at present and bring some kind of parity with that of other Government servants with similar qualifications and responsibilities.

There are other aspects of the problem of remuneration of

elementary school teachers. The first of these is that of providing a good system of *old age provision* (pension, etc.) with the aim that teachers of all categories, whatever the type of management under which they work, should be given the same old age provision as is given to the Government servants, namely, pension at three-eighths of the retiring salary plus a *gratuity* according to rules.

Second is the question of opportunities to elementary teachers for *promotion to higher cadres*. Such opportunities are even more effective than improved salary scales in attracting competent persons to the profession. Barring a few States like Maharashtra or Gujarat, no other State in India at present offers any avenues for promotion to elementary teachers. It is suggested that distinguished elementary school teachers should be eligible for promotion as teacher educators and supervisors of elementary schools. This suggestion has no financial implications, but can go far in attracting competent persons to the profession.

Pupil-Teacher Ratio. For the purpose of a perspective plan, it is essential to estimate the number of teachers required to meet the needs of expansion as well as of replacement. This can be done only if a definite decision is taken regarding the pupil-teacher ratio to be adopted.

Unfortunately, this is one of the most controversial areas in elementary education at present. There are two distinct schools of thought. According to one, the pupil-teacher ratio should be as low as possible and preferably 30 : 1. According to the other, a high pupil-teacher ratio is inescapable in the present situation in India and that the existing pupil-teacher ratio of 34 : 1 should be deliberately raised, during the next five years, to 50 : 1. The main argument in favour of the smaller pupil-teacher ratio is that it will lead to qualitative improvement whereas the main argument in respect of the larger pupil-teacher ratio is that it will enable us to provide a higher remuneration to teachers without affecting the pace of expansion.

In this context, the problem of the introduction of the double-shift system becomes very significant. Those who support a larger pupil-teacher ratio recommend the adoption of the double-shift system at the primary stage, or at any rate in classes I and II. The adoption of the double-shift system will obviously increase the overall pupil-teacher ratio. Opposition to this proposal is quite strong,

on the grounds that it introduces inequalities, the teachers having double-shift classes have to work harder without any additional remuneration; that the children learn less (although this assumption is not quite correct) and that it lowers standards. A suitable compensatory allowance to teachers who have to handle two shifts seems to be obviously justified. The effect of their arrangement on standards of achievement needs examination. The following points deserve consideration in this context. (*i*) The time for which children are kept in schools in class I (or sometimes classes I and II) should always be less than that for the other classes. It is a mistake to keep young children at school for as long as six hours a day. Three to four hours instruction is all that they need at this stage. (*ii*) Studies have been made in some places where the double-shift system has been in operation. They show that there is no significant difference in the learning of children who attend for three to four hours a day and those who spend five to six hours a day, if instruction is properly organised.

If the pupil-teacher ratio is to be raised without adopting the double-shift system, a larger class-size will have to be adopted. At present, the class-size is generally fixed at 40 and this may have to be raised to 50 or even 60. Even here, however, the same controversies are in evidence. One group of thinkers will not agree to a class-size of more than 40 which, in the last analysis, will give an average pupil-teacher ratio of about 30. The other group of thinkers proposes the adoption of class-size with a minimum of 50 pupils and a maximum of 60 pupils. If these suggestions are adopted, the overall pupil-teacher ratio may rise to 40, 45 or even 50. In this context, it may be pointed out that there is no special sanctity for any particular class-size. What matters is the method of teaching and organisation to be adopted. There are certain methods of organisation and teaching which can be used only if the total size of the class is small, while there are others which can be used in classes of larger size. If the proper techniques are adopted, it is possible to obtain better results with a large class than with a small class where the techniques employed are relatively unsatisfactory. Moreover, it must also be remembered that the size of the class is not a purely educational but a financial issue. When an educational authority has to face a given number of children but commands only limited resources for the appointment of teachers, the size of

the class gets determined on administrative and financial grounds, irrespective of the educational theory then prevailing. It is not always possible to make social and financial situations agree with educational theories. On the other hand, it is always preferable to utilise educational theories for devising solutions to problems that arise from inescapable social and economic needs. The question which an educationist should ask is what methods of teaching should be evolved in order to enable the teacher to teach in a class of the size which appears inevitable in the given situation. The teaching profession in this country has not accepted intellectually the large class as an inescapable necessity and it is not trained academically to handle it in an efficient manner. Yet the average situation in the country is such that six teachers out of ten are called upon to face classes of very big sizes varying from 50 to 100. It is this contrast between the training of teachers and their expectations on the one hand and the needs of the social and economic realities on the other—and not the large classes—that causes the present malaise in India. If we could only accept a large class-size as an economic necessity for the next 10 to 15 years, if we could concentrate on the evolution of teaching methods suitable for large classes, and if we could train our teachers properly in the handling of these methods, the educational standards would materially improve in spite of the size of the classes.

The study of elementary education even in the advanced countries shows that, in the initial stages, they adopted classes of larger size in order to achieve expansion quickly and economically. Later on, as the pressure of expansion became less and the resources available to elementary education expanded, the class-size was gradually reduced. A similar development has taken place in Kerala, the most advanced State in India in elementary education; and probably a similar development will have to be planned for the rest of the country, and particularly for the less advanced States.

At present, the pupil-teacher ratio is about 35 : 1. The different proposals made in this respect are that it may be raised to 40, 45 or even 50. Since the controversies on the subject are still strong and since public opinion in the country has not yet crystallised on this issue, it is proposed to calculate the total number of teachers required as well as the expenditure involved in the programme of providing free and compulsory education to all children in the age-group 6-14 on the basis of four different pupil-teacher ratios—35, 40, 45 and 50. Each State may then adopt such pupil-teacher ratio as may be in keeping with the financial resources available to it.

Number of Teachers Required. The total number of teachers required for the development of elementary education during the next 15 years has to be calculated in two parts: (a) the number of teachers required for additional enrolment in classes I-VIII; and (b) the number of teachers required for replacement due to such causes as retirement, death or desertion.

(*a*) *Teachers Required for Additional Enrolment.* The number of additional teachers required for new enrolment will depend upon the target date for the introduction of free and compulsory education in the age-group 6-14 and also upon the pupil-teacher ratio adopted. For the purpose of these calculations, three target dates will be assumed (1975, 1981 and 1985) and, as suggested earlier, four different assumptions will be made with regard to the pupil-teacher ratios (35, 40, 45 and 50).

The number of additional teachers required for the expansion of elementary education have been separately given in Table III on each of these assumptions.

(*b*) *Number of Teachers Required for Replacement.* The number of teachers required for filling the gaps in the ranks of the existing teachers due to retirement, death, desertion, etc. can be calculated if the "replacement rate" is known with fair accuracy. It may be pointed out that this replacement rate varies from country to country and, even in the same country, from time to time, because it depends on several social and economic factors. In several European countries, where the practice of a young woman working as an elementary teacher till she gets married is common, the replacement rate is as high as 7 per cent. In Japan, where the tradition is to follow the profession steadily, the replacement rate is less than 2 per cent. In a recent study made by the Ministry of Education, it was found that the replacement rate in India varied from one part of the country to another. In the tribal areas, for instance, where the conditions of life are very difficult, the desertion rate is high. In urban areas, on the other hand, the desertion as well as the death rates are lower. The studies on replacement rate will, therefore, have to be conducted periodically and separately for the different parts of the country.

TABLE III

NUMBER OF ADDITIONAL TEACHERS REQUIRED TO MEET THE DEMAND OF ADDITIONAL PUPILS (1966-76)

(*In thousands*)

Assumption about enrolment by 1975-76	*Total enrolment in classes I-VIII in*		*Number of teachers expected to be in position in 1966*	*Number of teachers expected to be in position in 1976 on the assumption of pupil-teacher ratios of*				*Teachers needed for additional enrolment on the basis of the pupil-teacher ratios of*			
	(1966)	*(1976)*		*35*	*40*	*45*	*50*	*35*	*40*	*45*	*50*
I. 100 p.c. in 6-11 age-group and 50 p.c. in 11-14 age-group	59,400	100,000	1,626	2,860	2,500	2,222	2,000	1,234	874	596	374
II. 100 p.c. in 6-11 age-group and 75 p.c. in 11-14 age-group	59,400	110,000	1,626	3,146	2,750	2,444	2,200	1,520	1,124	818	574
III. 100 p.c. in 6-11 age-group and 100 p.c. in 11-14 age-group	59,400	120,000	1,626	3,432	3,000	2,666	2,400	1,806	1,374	1,040	774

In the study of the problem recently carried out by the Ministry of Education, it was found that the overall replacement rate for the country as a whole was about 3.7 per cent—2 per cent for retrenchment and 1.7 per cent for desertion. As this study was based on comparatively meagre data and as there is reason to believe that its findings erred on the side of underestimation it has been assumed, in this Plan, that the replacement rate for elementary teachers would be about 4 per cent (2 per cent for retirement and 2 per cent for desertions and deaths) during the next 10-15 years.

If replacement is calculated at 4 per cent per year on the total number of teachers in position in 1965-66 and if replacement is calculated on the new teachers appointed, during the Fourth and the Fifth Five Year Plan, at 2 per cent (in the case of these teachers the question of retirement does not arise and the only reasons for replacement would be deaths, desertions, etc. which account for only 2 per cent), the total number of teachers required during this period for the expansion of elementary education as well as for replacement can be calculated. This is shown in Table IV. It will be seen from this table that the minimum number of additional teachers required during the Fourth and the Fifth Five Year Plan would be 106,000 a year (on the basis of the minimum target of enrolment and the highest pupil-teacher ratio) while the largest number of teachers needed would be 264,000 a year (on the basis of the highest target of enrolment and the lowest pupil-teacher ratio).

Expansion of Training Facilities. If this required number of teachers is to be trained and if new appointments to the teaching profession are to be restricted to trained teachers only, the enrolment in the training institutions for elementary teachers will have to be considerably increased. Table V shows the enrolment needed in training institutions in relation to (1) the target of enrolment, and (2) the pupil-teacher ratio to be adopted, on the assumption that (*a*) the duration of the training course would be two years and that (*b*) the wastage in training institutions would be of the order of ten per cent only.

The large expansion of training facilities needed in the immediate future can be imagined if these requirements are compared to the existing position in 1960-61 when the total number of training institutions for elementary teachers in the country was 1,139 and their enrolment stood only at 122,770. Even at the end of the

TABLE IV

TOTAL NUMBER OF ADDITIONAL TEACHERS REQUIRED (1966-76)

Assumption about enrolment by 1975-76	*Teachers required for replacement @ 4% per year of the initial cadre of 1,606,000 in 1965-66 in the 10-year period (in lakhs)*	*Teachers required for additional enrolment on the basis of different pupil-teacher ratios of (in thousands)*				*Total number of additional teachers required (1966-76) on the basis of pupil-teacher ratios of (in thousands)*				*Annual requirements of additional teachers in 1966-76 on the basis of pupil-teacher ratios of (in thousands)*			
		35	*40*	*45*	*50*	*35*	*40*	*45*	*50*	*35*	*40*	*45*	*50*
I. 100 per cent in 6-11 age-group and 50 per cent in 11-14 age-group	6.50	1,234 123*	874 87*	596 60*	374 37*	2,007	1,611	1,306	1,061	201	161	131	106
II. 100 per cent in 6-11 age-group and 75 per cent in 11-14 age-group	6.50	1,520 152*	1,124 112*	818 82*	574 57*	2,322	1,886	1,550	1,281	232	189	155	128
III. 100 per cent in 6-11 age-group and 100 per cent in 11-14 age-group	6.50	1,806 181*	1,374 137*	1,040 104*	774 77*	2,637	2,161	1,794	1,501	264	216	179	150

*Replacements added at 10 per cent on the total number of teachers required (replacement rate being taken at 2 per cent per annum on the teachers actually employed during the year).

TABLE V

TOTAL ENROLMENT NEEDED IN TRAINING INSTITUTIONS (1966-76)
(*in thousands*)

Assumption with regard to targets	*Enrolment needed in training institutions on the assumption of a pupil-teacher ratio of*			
	35	*40*	*45*	*50*
I. 100 per cent enrolment in 6-11 age-group and 50 per cent in 11-14 age-group	447	358	291	2,236
II. 100 per cent enrolment in 6-11 age-group and 75 per cent in 11-14 age-group	516	420	344	284
III. 100 per cent enrolment in 6-11 age-group and 100 per cent in 11-14 age-group	587	480	398	333

Third Five Year Plan, their number will be only about 1,300 with an enrolment of 150,000.

There are three ways to step up the enrolment of training institutions: (1) to open new training institutions; (2) to increase the capacity of existing training institutions; and (3) to try out a suitable combination of (1) and (2).

The study-group on teacher training has recommended that (1) each State should decide the optimum size of a training institution (this would be somewhere between 150 to 200), (2) increase the capacity of each small institution to the optimum size, (3) establish the necessary number of new institutions after the expansion due to (2) is first ascertained, and (4) plan the location of all training institutions in such a manner that about 80 per cent of them are located in the rural areas, that each district (which should be taken as a unit in this case) should have an adequate number of training institutions to meet the needs of all its schools and that they should be located in such a way as to be easily accessible from all parts of the district. The study-group has further recommended that each State should prepare a definite programme for the expansion and

improvement of training facilities for elementary teachers before the end of 1963-64, and that the implementation of this programme should start in the last two years of the Third Five Year Plan itself. Since the preparation of teachers is the most important condition precedent for the success of a programme of elementary education, this scheme of expanding and improving teacher training facilities will have to be given a high priority, and will have to be implemented fully during the next 3-5 years.

Buildings and Equipment. The improvement of teachers is no doubt the single most important factor in the qualitative improvement of elementary education which would have to be emphasized in the Fourth and the Fifth Five Year Plan. But a mere improvement of teachers is not enough. It has to be supplemented by three other programmes: (1) the provision of adequate buildings and equipment for all elementary schools; (2) the provision of ancillary services such as school health, school meals, free supply of text-books, writing materials and school uniforms; and (3) the provision of an adequate and competent supervisory service.

The programme of providing school buildings (inclusive of quarters for teachers, wherever necessary and possible) and equipment to all elementary schools will involve a very large financial outlay. At the end of the Third Five Year Plan, the total enrolment in elementary schools would reach about 60 million and out of these, only about 40 per cent is estimated to have been provided with satisfactory buildings and adequate equipment. Steps will, therefore, have to be taken to provide buildings and equipment to about 36 million children out of those already enrolled in schools by the end of the Third Five Year Plan. In addition, buildings and equipment on a similar scale would have to be provided for all the new children who would be enrolled during the Fourth and the Fifth Five Year Plans. Assuming that this new enrolment would be of the order of 4 million a year, buildings and equipment will have to be provided for a total of 76 million children during the Fourth and the Fifth Five Year Plan or roughly at the rate of about 7.6 million children per year. Assuming that the cost of buildings is Rs. 75 per pupil and that equipment is Rs. 50 per pupil, the total outlay required for this programme alone would be Rs. 9,500 million during the Fourth and the Fifth Five Year Plan or Rs. 950 million per year.

The cost of buildings and equipment assumed in these estimates is not very high. In fact, in several parts of the country, the actual cost for providing equipment and buildings to elementary schools is much higher than the assumptions made here. It is, however, felt that it should be possible to organise research in the better planning of school buildings and equipment, and to make use of available local materials to reduce the cost of this programme and to bring it within the assumptions stated earlier.

Ancillary Services. At present, there is hardly any provision for school health services, except in a few urban areas. One of the major programmes for improving the health of the school child and thereby the standards of instruction in elementary schools is to provide an efficient health service to all the children. A beginning in this direction may be made with the age-group 6-11; but ultimately the services will have to be extended to all children in the age-group 6-14.

A programme of school meals is the second important ancillary service that will have to be organised for improving the health of the school child. By the end of the Third Plan, about 10 million children are proposed to be brought under this programme. It is, however, necessary to expand the programme intensively during the Fourth and the Fifth Five Year Plan and to provide nutritious and balanced school meal to every child attending elementary school by 1975-76.

The third important ancillary service is to provide free text-books and writing materials to all children attending elementary schools. In addition, provision will also have to be made to see that all children in elementary schools use the prescribed school uniform and that, for this purpose, the necessary assistance is made available to the children of poor parents. These two programmes would not be so costly as the programmes of providing health services and noon meals; but taken together, they will assist materially in improving the standard of instruction in elementary schools.

Improving Supervision. The third important programme for qualitative improvement of elementary education is to provide an adequate and competent supervisory service. At present, the total work load on a supervisory officer of elementary schools is very heavy. This has to be reduced so that he may be able to devote more time to working with teachers and guiding them to improve instruction, and for this purpose it will be necessary to increase the number

of supervisory officers. Perhaps, it may also be necessary to separate certain administrative functions which are now performed by the supervising agency and to entrust them to another agency specially created for the purpose. Steps will also have to be taken to improve the remuneration of supervisory staff to attract a better type of persons to the profession and to provide them regular institutionalised programmes of in-service education with a view to improving their competence.

Educational research will also have to be developed in all sectors of elementary education and particularly in respect of curriculum and teaching methods. Special problems, such as the single-teacher schools, would also have to be studied with a view to improving their working. For this purpose, special institutions would have to be set up in each State for the development of research in elementary education and also to assist universities, training colleges and voluntary organisations to develop a programme of research in all problems of elementary education.

Financial Implications. It is necessary to realise the financial implications of these proposals of qualitative improvement.

(*i*) *Teacher Costs.* From this point of view, a number of suggestions have been put forward and they may be summarized broadly as in the following table:

TABLE V-A

PROPOSED SALARIES OF TEACHERS

Proposal	*Average annual salary proposed to be reached in*			
	1961	*1966*	*1971*	*1976*
	Rs.	*Rs.*	*Rs.*	*Rs.*
I.	900	1,000	1,300	1,500
II.	900	1,100	1,400	1,600
III.	900	1,200	1,500	1,700
IV.	900	1,300	1,600	1,800

All these proposals are made on the basis of the 1960-61 prices. They will have to be suitably modified, from time to time, in keeping with the rise in prices or cost of living.

It will be seen that the first of these four proposals suggests an increase of about two-thirds in the average remuneration of elementary teachers. The national dividend in 1960-61 was about Rs. 330 and is expected to rise to Rs. 500 (at constant prices) by 1975-76. The basic assumption of this proposal, therefore, is that the salaries of elementary teachers should rise in keeping with the growth in the national dividend of the country. On the other hand, proposal IV suggests that the average salary of the elementary teachers should be doubled during this period of fifteen years. The underlying assumption is that the salaries of elementary teachers are low at present and that they will have to be increased at a rate faster than that of the national dividend if justice is to be given to the elementary teachers. Proposals II and III hold intermediary positions between these two extremes.

(*ii*) *Non-teacher Costs.* The second important implication of the above proposals is that, in spite of this proposed increase in salaries of teachers the non-teacher costs of education will also increase considerably during the Fourth and Fifth Five Year Plans both in absolute figures as well as in their relation to teacher costs. In 1950-51, the ratio of teacher costs to non-teacher costs in the total direct expenditure on elementary education was 80:20. During the next ten years, the proportion of non-teacher costs gradually declined and at the end of the Second Plan it was estimated that the ratio of teacher costs to non-teacher costs would be 88:12. The physical facilities provided in elementary schools, low as they were even in 1950-51, have obviously declined still further during the first two Plans and owing to pressure of expansion the average elementary school is almost equivalent to the mere provision of a teacher at present. If ancillary services are to be developed on the lines indicated earlier it is obvious that in spite of the increase in the salaries of teachers the proportionate share of the non-teacher costs in the total direct expenditure on elementary education would still greatly increase. The ideal target to be reached in this respect would be a ratio of 50:50 between teacher and non-teacher costs. But as an alternative, two other ratios may also be considered—60:40 and 70:30. It will obviously not be possible to allow the proportion of teacher costs and non-teacher costs to fall below 70:30 without adversely affecting the quality of elementary education.

(*iii*) *Teacher Training.* At present, the cost of teacher training is roughly about 3.5 per cent of the total direct expenditure on elementary education. If the training facilities are to be expanded and improved, as indicated earlier, it is estimated that this expenditure will have to rise to at least 5 per cent on the total direct expenditure on elementary education.

(*iv*) *Supervision.* If the supervising machinery is to be strengthened and improved, as indicated earlier, and if research in the problems of elementary education is to be extensively developed, it will be necessary to increase the total expenditure on direction and inspection also. At present the total expenditure on this head is about 2.5 per cent of the total direct expenditure on elementary education. It is felt that this will have to be increased to at least 5 per cent during the Fourth and Fifth Five Year Plans.

(*v*) *Capital Costs.* At present, the capital expenditure incurred on elementary education is very low. In order to provide elementary schools with adequate buildings and equipment, it is very necessary to provide large outlays during the Fourth and Fifth Five Year Plans. The minimum amount required may be Rs. 75 per pupil on account of buildings and Rs. 50 per pupil on account of equipment, and the optimum amount may be Rs. 100 per pupil on account of buildings and Rs. 100 per pupil on account of equipment.

Estimate of Funds Required: The Need-based Approach. If the targets of expansion, as suggested earlier, are to be reached and if a programme of qualitative improvement of elementary education on the lines indicated above is also to be implemented simultaneously, it is obvious that the total expenditure on elementary education will increase considerably. It is, therefore, necessary to make a rough estimate of the financial outlay that would be needed to put across the programmes suggested above.

There are two ways in which this can be done. In the first of the *need-based* approach, an attempt is made to determine the programme demanded by the people and the total financial outlay required for its implementation is calculated. In the second or the *resources-based* approach, an attempt is first made to estimate the financial resources that are likely to be available for a programme of elementary education and then the outline of the best programme that could be put across within the inescapable financial limitations is prepared. It is obvious that the implications of the programme and its priorities can be understood better if both these exercises are attempted and balanced against each other.

The total cost of a programme of free and compulsory education as it is generally demanded by the people is very high. A rough indication of this may be had from the following calculations.

I. Recurring Cost

(*a*) *Teacher Costs.* The general consensus is that the minimum salary of an elementary school teacher should be Rs. 100 per month. The maximum is placed varyingly at Rs. 200, Rs. 250 or even Rs. 300. The average salary of the type of the scale which is generally proposed at present would be about Rs. 150 per month or Rs. 1,800 per year. To this, we will have to add about 10 per cent for costs on account of old age provision and welfare services. It may therefore, be safely assumed that, under the existing popular proposals, the average cost on account of a teacher would be Rs. 2,000 per year. The commonly accepted pupil-teacher ratio is 40:1. Hence the recurring teacher cost of elementary education would be Rs. 50 per pupil.

(*b*) *Cost on Account of Other Items.* To this, we will have to add the recurring cost per pupil on account of other items. These would include the following:

Items of expenditure	*Annual cost per pupil* Rs.
School health (including school meals) for all children	30
School uniforms (given free to about 20 per cent of the children)	5
Supply of free text-books and writing materials and other costs and contingencies.	10
TOTAL	50

(*c*) *Total Recurring Costs.* It will thus be seen that the total direct cost per pupil would come to Rs. 100. To this, we will have to add 5 per cent on account of the direct costs of teacher education and another 5 per cent on account of supervision. The total recurring cost of elementary education would thus come to Rs. 110 per pupil.

II. Non-Recurring Cost

The cost of one class-room of a primary, middle or basic school varies considerably. In cities and towns, it may be as high as Rs. 6,000 to Rs. 10,000 per class-room (exclusive of land) and may go up to Rs. 8,000 and to Rs. 18,000 inclusive of land and equipment. In villages, the cost is considerably lower. The land is almost free and the construction cost of the building is about Rs. 3,000 to Rs. 4,000 per class-room. For the country as a whole, the capital cost on account of buildings is generally assumed at Rs. 100 per pupil. Similarly, the cost on account of equipment also is assumed at Rs. 100 per pupil. This includes furniture, teaching aids, library and craft materials. On these assumptions, a sum of Rs. 200 per child per year would be needed for non-recurring expenditure. As has been stated earlier provision will have to be made for this non-recurring expenditure for about 36 million children out of those who would be already enrolled by the end of the Third Five Year Plan and for all the additional children proposed to be enrolled during the Fourth and Fifth Five Year Plans.

III. Total Cost—Recurring and Non-Recurring

Table VI shows the total cost of this programme on the three assumptions made earlier.

The most popular demand is that free and universal education should be provided for all children in the age-group 6-14 by 1975-76 at the latest. It, therefore, follows that if the popular demand is to be implemented, the total expenditure on the programme of elementary education which stood at about Rs. 1,200 million (or 0.8 per cent of the national income) in 1960-61 would have to be increased to Rs. 15,120 million (or 4.3 per cent of the national income) by 1975-76. This is almost an impossible demand.

The Resources-based Approach: *Funds likely to be Obtained for Elementary Education.* Let us now turn to the second or the resources-based approach to the planning of elementary education. Here, we do not first determine what the programme of elementary education would be and then determine its cost; on the other hand, we ask the following questions. What is the amount likely to be available by 1975-76 for the recurring and capital expenditure on

Table VI

TOTAL COST (RECURRING AND NON-RECURRING) OF A PROGRAMME OF FREE AND COMPULSORY EDUCATION FOR ALL CHILDREN IN THE AGE-GROUP 6-14

Target	*Total number of children to be enrolled in elementary schools by 1975-76 (in millions)*	*Total recurring cost of the programme@ Rs. 100 per child (in millions)*	*Total capital cost of the programme@ Rs. 200 per child (in millions)*	*Grand total annual cost (in millions)*
(1)	(2)	(3)	(4)	(5)
		Rs.	*Rs.*	*Rs.*
I. 100% enrolment in the age-group 6-11 and 50% enrolment in the age-group 11-14	100	11,000	1,520	12,520
II. 100% enrolment in the age-group 6-11 and 75% enrolment in the age-group 11-14	110	12,100	1,720	13,820
III. 100% enrolment in the age-group 6-11 and 100% enrolment in the age-group 11-14	120	13,200	1,920	15,120

*N.B. In calculating the non-recurring cost, it has been assumed that all the new children enrolled in schools during the year as well as one-tenth of the 36 million children enrolled by 1965-66 (and not provided with adequate buildings and equipment) would be covered by the programme of capital expenditure. Under target no. I, the total number of children for whom capital costs would have to be provided annually comes to 7.6 million (4 million new enrolment and 3.6 million old enrolment). The total capital cost of the programme of buildings and equipment at Rs. 200 per child thus comes to Rs. 1,520 million. Similarly, the number of children to be covered under the capital costs programme under target no. II is 8.6 million (5 million new enrolment and 3.6 million old enrolment) and that under target no. III is 9.6 million (6 million new enrolment and 3.6 million old enrolment).

elementary education? What is the best programme that can be put across within this amount?

In order to answer these questions properly, it will be necessary to raise two other related issues. (*a*) What proportion of its national income should India spend on education in general? (*b*) What proportion of this total educational expenditure should be devoted to the provision of free and compulsory education for all children in the age-group 6-14?

With regard to the first of these issues, it may be pointed out that India today spends only about 2.3 per cent of her national income on education as a whole. This is much lower than what many countries of the world are spending. In this respect, we may divide the countries of the world into three categories. In the first category come those countries which spend more than 5 per cent of their national income on education: Japan, for instance, spends 6 per cent of its national income on education. In the second category come those countries which spend about 3-5 per cent of their national income on education: England, for instance, spends 4.5 per cent of its national income on education. In the third category come most of the developing countries of the world which generally spend less than 3 per cent of their national income on education; and it is in this category that India falls. What we can hope for is that the country should spend 6 per cent of its national income on education. Nothing could be better.

One more assumption is needed to determine the funds likely to be available for education as a whole by 1975-76, viz. the rate of increase in national income itself. The paper on Perspective Planning in India prepared by the Planning Commission suggests that we should attempt an annual increase of 7 per cent in the national income. There are several persons who think that this rate of growth is not feasible. But even assuming that it becomes possible, the total national income in India would rise only to Rs. 3,730 billion by 1975-76 or Rs. 600 per head of population. The total educational expenditure in 1975-76 would, therefore, vary between Rs. 18,650 million (5 per cent of the national income) and Rs. 22,380 million (6 per cent of the national income).

With regard to the second question, Table VII shows that the proportion of the total direct expenditure on elementary education

in India has varied from 39.4 per cent in 1951-52 to 35.0 per cent in 1959-60.

TABLE VII

PROPORTION OF TOTAL DIRECT EXPENDITURE ON ELEMENTARY EDUCATION TO TOTAL EDUCATIONAL EXPENDITURE (1949-50 to 1960-61)

Year	*Total direct expenditure on elementary education (in millions of rupees)*	*Percentage of total direct expenditure on elementary education to total educational expenditure*
1949-50	401	39.3
1950-51	441	38.6
1951-52	491	39.4
1952-53	538	39.1
1953-54	568	38.4
1954-55	624	37.8
1955-56	691	36.5
1956-57	756	36.7
1957-58	875	36.4
1958-59	984	35.8
1959-60	1,099	35.0
1960-61	1,196	35.3

Assuming that, with some modifications, this proportion would continue to operate during the next ten years or so, it appears that the total funds available for elementary education by 1975-76 would vary between Rs. 6,300 million to Rs. 7,900 million.

Cost per Pupil. Assuming that the total amount likely to be available for the development of elementary education would vary between Rs. 6,300 million and Rs. 7,900 million by 1975-76, we may have to set aside about 10 per cent of this amount for capital expenditure. The total amount available for recurring expenditure would thus vary between Rs. 5,700 million and Rs. 7,100 million. As the number of children to be enrolled varies between 100 million and 120 million depending upon the target adopted, we would be able to afford a cost per pupil which would vary between Rs. 47.5

per pupil per year (on the assumption that the amount available for recurring expenditure on elementary education would be the least, that is, Rs. 5,700 million and the number of children to be enrolled would be the highest, that is, 120 million) and Rs. 71 per pupil per year (on the assumption that the funds available for recurring expenditure would be the highest, that is, Rs. 7,100 million and the target of enrolment would be the lowest, that is, 100 million). The different costs per pupil that could be possible between these two extreme limits are shown in the following table:

TABLE VIII

COST PER PUPIL (1975-76)

Target	*Total number of children to be enrolled (in millions)*	*Total amount likely to be available for recurring expenditure on elementary education (in millions of rupees)*	*Cost per pupil* Rs.
(1)	(2)	(3)	(4)
100 per cent enrolment in the age-group 6-11 and 100 per cent enrolment in the age-group 11-14	120	5,700	47.5
100 per cent enrolment in the age-group 6-11 and 75 per cent enrolment in the age-group 11-14	110	5,700	51.9
100 per cent enrolment in the age-group 6-11 and 50 per cent enrolment in the age-group 11-14	100	5,700	57.0
100 per cent enrolment in the age-group 6-11 and 100 per cent enrolment in the age-group 11-14	120	7,100	59.1
100 per cent enrolment in the age-group 6-11 and 75 per cent enrolment in the age-group 11-14	110	7,100	64.5
100 per cent enrolment in the age-group 6-11 and 50 per cent enrolment in the age-group 11-14	100	7,100	71.0

The cost per pupil in elementary schools at the end of the Second Five Year Plan was about Rs. 30. Table VIII shows that it is possible, depending upon the target adopted and the funds available, to raise this cost from Rs. 30 to any amount between Rs. 47.5 and Rs. 71.0. These are, by no means, very ambitious assumptions. In fact, judged by the standard recommended by the Karachi Plan, which assumed a cost per pupil of Rs. 100 to be reached by 1980, these may be said to be on the low side.

Cost per Pupil in Relation to Average Salary of Teachers—Pupil-teacher Ratio and Non-teacher Costs. Three important questions arise in this context. Given a certain cost per pupil, (1) what average annual salary can be given to the teachers, (2) what pupil-teacher ratio can be adopted, and (3) what would be the proportion between the teacher costs and non-teacher costs? In order to answer these questions, it is necessary to connect the cost per pupil with the other three variables involved. This has been done below.

Let n be the number of children to be educated ;
x be the cost per pupil ;
a be the average annual salary of a teacher ;
t be the pupil-teacher ratio ; and
r be the ratio of teacher costs to total direct expenditure on elementary education.

Then, the number of teachers required is n/t. Since the average annual salary of a teacher is a, the total cost on account of a teacher is $11a/10$, adding 10 per cent on account of old age provision and welfare services. The total teacher costs, therefore, are $11an/10t$.

If these are $n/100$ of the total direct expenditure the latter is equal to $110an/rt$. Adding 10 per cent for indirect expenditure on teacher education and supervision, the total recurring expenditure becomes $121an/rt$ (1)

But, since the cost per pupil is x, the total recurring expenditure is also nx (2)

Equating (1) and (2),

$$x=121a/rt \quad (3)$$

This formula connects four variables: a or the average annual salary of an elementary teacher; x cost per pupil; r the ratio of teacher costs to total direct expenditure on elementary education;

TABLE IX

COST PER PUPIL IN RELATION TO THE AVERAGE ANNUAL SALARY OF TEACHERS, PUPIL-TEACHER RATIOS AND PROPORTION OF TEACHER COSTS TO TOTAL DIRECT EXPENDITURE ON ELEMENTARY EDUCATION

Cost per pupil (in rupees)	Average Annual Salary of Teachers (in rupees)											
	Pupil-teacher ratio : 35			Pupil-teacher ratio : 40			Pupil-teacher ratio : 45			Pupil-teacher ratio : 50		
	Ratio of teacher costs to total direct expenditure on elementary education			Ratio of teacher costs to total direct expenditure on elementary education			Ratio of teacher costs to total direct expenditure on elementary education			Ratio of teacher costs to total direct expenditure on elementary education		
	70%	60%	50%	70%	60%	50%	70%	60%	50%	70%	60%	50%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
47.5	962	824	687	1,099	942	785	1,237	1,060	883	1,374	1,178	981
51.9	1,050	900	750	1,201	1,029	858	1,351	1,158	965	1,501	1,287	1,072
57.0	1,154	989	824	1,319	1,131	942	1,484	1,272	1,060	1,649	1,413	1,178
59.1	1,197	1,026	855	1,368	1,172	977	1,539	1,319	1,099	1,710	1,465	1,221
64.5	1,306	1,119	933	1,493	1,279	1,066	1,679	1,439	1,199	1,866	1,599	1,333
71.0	1,436	1,232	1,027	1,643	1,408	1,174	1,848	1,584	1,320	2,054	1,760	1,467

and t the pupil teacher ratio. Given any three of these it is possible to find out the fourth. For convenience of reference Table IX has been complied to show all possible variations of a, r, and t, for the six different values of x which were obtained in Table VIII.

A word of explanation may be given regarding the use of Table IX which connects the cost per pupil with the average annual salary of a teacher, the pupil-teacher ratio and proportion of the teacher costs to non-teacher costs. For instance, when the cost per pupil is Rs. 47.5 per year (column 1, first row), the pupil-teacher ratio is 35, and the proportion of teacher costs to non-teacher costs is 50:50, the average annual salary of the teacher would be Rs. 687 (column 4, first row). Similarly when the cost per pupil per year is Rs. 71 (column 1 sixth row) the pupil-teacher ratio is 50 and the proportion of teacher costs to non-teacher costs is 70:30, the average annual salary of the teacher would be Rs. 2,054. In this way, all these four variables could be connected with each other.

It will be seen from Table IX that the average annual salary of teachers can vary from Rs. 687, which is calculated on the lowest cost per pupil (47.5), the lowest pupil-teacher ratio (35) and the highest proportion of non-teacher costs (50 per cent), to Rs. 2,054, which is calculated on the basis of the highest costs per pupil (Rs. 71), the highest pupil-teacher ratio (50), and the lowest proportion of non-teacher costs (30 per cent). It was suggested earlier that the limits within which the salary of the elementary teacher may be made to vary by 1975-76 would be Rs. 1,500 to Rs. 1,800. Within these limits, the following options are available to us.

(i) *For average annual salaries between Rs. 1,400 and 1,499.* If we adopted a cost per pupil of Rs. 71, a pupil-teacher ratio of 35 and non-teacher costs at 30 per cent, the average annual salary of Rs. 1,438 can be given.

If we adopt a cost per pupil of Rs. 64.5, a pupil-teacher ratio of 40, and non-teacher costs at 30 per cent, an average annual salary of Rs. 1,493 can be given.

If we adopt a cost per pupil of Rs. 71, a pupil-teacher ratio of 40 and non-teacher costs at 40 per cent, an average annual salary of Rs. 1,408 can be given.

If we adopt a cost per pupil of Rs. 57, a pupil-teacher ratio of 45, and non-teacher costs at 30 per cent, an average annual salary of Rs. 1,484 can be given.

If we adopt a cost per pupil of Rs. 64.5, a pupil-teacher ratio of 45 and non-teacher costs at 40 per cent, an average annual salary of Rs. 1,439 can be given.

If we adopt a cost per pupil of Rs. 57, a pupil-teacher ratio of 50, and non-teacher costs at 40 per cent an average annual salary of Rs. 1,413 can be given.

If we adopt a cost per pupil of Rs. 59.1, a pupil-teacher ratio of 50 and non-teacher costs at 40 per cent, an average annual salary of Rs. 1,465 can be given.

If we adopt a cost per pupil of Rs. 71, a pupil-teacher ratio of 50, and non-teacher costs at 50 per cent, an average annual salary of Rs. 1,467 can be given.

(*ii*) *For average annual salaries between Rs. 1,500 and 1,599.* If we adopt a cost per pupil of Rs. 59.1, a pupil-teacher ratio of 45 and non-teacher costs at 30 per cent, an average annual salary of Rs. 1,539 can be given.

If we adopt a cost per pupil of Rs. 71, a pupil-teacher ratio of 45 and non-teacher costs at 40 per cent, an average annual salary of Rs. 1,584 can be given.

If we adopt a cost per pupil of Rs. 51.9, a pupil-teacher ratio of 50 and non-teacher costs at 30 per cent, an average annual salary of Rs. 1,501 can be given.

If we adopt a cost per pupil of Rs. 64.5, a pupil-teacher ratio of 50 and non-teacher costs at 40 per cent, an average annual salary of Rs. 1,599 can be given.

(*iii*) *For average annual salaries between Rs. 1,600 and 1,699.* If we adopt a cost per pupil of Rs. 71, a pupil-teacher ratio of 40 and non-teacher costs at 30 per cent, an average annual salary of Rs. 1,643 can be given.

If we adopt a cost per pupil of Rs. 64.5, a pupil-teacher ratio of 45 and non-teacher costs at 30 per cent, an average annual salary of Rs. 1,679 can be given.

If we adopt a cost per pupil of Rs. 57, a pupil-teacher ratio of 50 and non-teacher costs at 30 per cent, an average annual salary of Rs. 1,649 can be given.

(*iv*) *For average annual salaries between Rs. 1,700 and 1,799.* If we adopt a cost per pupil of Rs. 59.1, a pupil-teacher ratio of 50, and non-teacher costs at 30 per cent, an average annual salary of Rs. 1,710 can be given.

If we adopt a cost per pupil of Rs. 71, a pupil-teacher ratio of 50, and non-teacher costs at 40 per cent, an average annual salary of Rs. 1,760 can be given.

(*v*) *For average annual salaries of Rs. 1,800 and above.* If we adopt a cost per pupil of Rs. 71, a pupil-teacher ratio of 45 and non-teacher costs at 30 per cent, an average annual salary of Rs. 1,848 can be given.

If we adopt a cost per pupil of Rs. 64.5, a pupil-teacher ratio of 50 and non-teacher costs at 30 per cent, an average annual salary of Rs. 1,866 can given.

If we adopt a cost per pupil of Rs. 71, a pupil-teacher ratio of 50 and non-teacher costs at 30 per cent, an average annual salary of Rs. 2,054 can be given.

It will thus be seen that a pupil-teacher ratio of 35 is practically ruled out if we want to give a decent wage to elementary school teachers. The pupil-teacher ratio will have to be increased to 45 at least and perhaps to 50. This is possible if the double shift could be introduced in classes I and II.

It also appears that it may not be possible for us to allow non-teacher costs to go beyond 30 per cent of the total direct expenditure on elementary education. This will imply that we may not be able to provide school meals to more than 30 per cent of the children. The facilities regarding school health services may also have to be curtailed. The provision of free text-books and writing materials can, however, be provided to all and the supply of free uniforms may have to be restricted to 20 per cent of the total enrolment.

Main Issues for Decision. From the foregoing discussion, it would be evident that decisions would have to be taken on the following points as a preliminary step towards the preparation of a perspective plan for the development of elementary education between 1961 and 1975.

(1) What should be the target for enrolment to be reached by 1975? In particular, which of the following assumptions may be made for the enrolment target in 1975? (*a*) by 1975, we would enrol 100 per cent of the children in the age-group 6-11 and 50 per cent of the children in the age-group 11-14; (*b*) by 1975, we would enrol 100 per cent of the children in the age-group 6-11 and 75 per cent of the children in the age-group 11-14; and (*c*) by 1975, we should enrol 100 per cent of the children in the age-group 6-14.

(2) What should be the policy in respect of the average remuneration of elementary school teachers? In particular, which of the following broad scales of average salaries should be adopted as the basis for preparing estimates of costs?

AVERAGE ANNUAL SALARY OF ELEMENTARY TEACHERS

Assumption	*1961*	*1966*	*1971*	*1976*
	Rs.	*Rs.*	*Rs.*	*Rs.*
I.	900	1,000	1,300	1,500
II.	900	1,100	1,400	1,600
III.	900	1,200	1,500	1,700
IV.	900	1,300	1,600	1,800

(3) What should be the policy regarding pupil-teacher ratio? What would be the reasonable pupil-teacher ratio to be reached by 1975—35, 40, 45 or 50?

(4) What should be the policy in prescribing minimum qualifications in general education for elementary school teachers?

(5) What should be the policy adopted for expanding and improving the professional training of elementary school teachers, and what financial provision should be made for the purpose?

(6) What should be the policy regarding increasing expenditure on items other than teacher costs in elementary education by (i) providing contingent expenditure to elementary schools on a larger scale, and (ii) by introducing ancillary services such as school health (including school meals), provision of uniforms and free supply of text-books and writing materials? In particular, what should be the percentage of teacher costs to total direct expenditure on elementary education?

(7) What should be the policy regarding improvement of direction, administration and supervision, and on what scale should expenditure be provided for the purpose in the estimate of costs?

(8) What proportion of the national income could reasonably be expected to be devoted to education as a whole by 1975?

(9) What proportion of the total educational expenditure should be devoted to elementary education by 1975? How should this expenditure be divided between recurring and capital costs?

(10) Of the total financial resources available for elementary education, how much should be allocated to (*i*) teacher costs; (*ii*) direct expenditure on items other than teacher costs; (*iii*) indirect expenditure on direction, administration and supervision; (*iv*) indirect expenditure on teacher training; and (*v*) capital costs?

(11) What should be the reasonable cost per pupil to be reached by 1975? How would the average remuneration of elementary school teachers, pupil-teacher ratio and the percentage of teacher costs to total direct expenditure on elementary education be related thereto?

It is suggested that these important problems should be discussed and decided at a very high level. It would be desirable to take decisions for the country as a whole; though it is not absolutely necessary to do so. On each of the issues raised here, it would be open to the States to take different decisions in keeping with their own local conditions. But all variations thus introduced should be within the broad limits set by the Government of India.

Some Important Administrative Problems. We have discussed so far the main financial problems involved in the development of elementary education, namely, the total financial outlay required for a good programme of elementary education, the funds likely to be available for it in the near future, the manner in which they could be best utilised and the fixation of priorities. We shall now turn to the consideration of some of the important administrative matters involved in the programme. These are: (*i*) the preparation of separate plans for the development of elementary education in each State; (*ii*) the equalisation of educational opportunities as between one State and another, and, in particular, the grant of special financial assistance to the less advanced States for reaching the goal of universal education; (*iii*) the determination of the proper role of the Central and State Governments, local bodies and voluntary organisations in the planning and implementation of the programme; and, in particular, the problem of democratic decentralisation with reference to the transfer of the administration of elementary education to the local bodies at various levels; and (*iv*) the passing of the essential legislation for compulsory education and enforcement of compulsory attendance. These would be briefly discussed in the following paragraphs.

Preparation of State Plans. What has been indicated in the foregoing discussions is a broad outline of the perspectives of the development of elementary education in India as a whole and points at

planning decisions that would be required. Conditions, however, vary so greatly from State to State that a nation-wide plan acquires relevance only when it is integrated with the plans at the State level where the responsibility for implementation rests. It is, therefore, necessary for each State to prepare its own perspective plan for the development of elementary education between 1965-66 and 1975-76 against the background of a general plan of socio-economic development in the State and also of educational developments in all sectors.

It is, therefore, suggested that, during 1963-64, each State should prepare its own perspective plan for the development of elementary education between 1965-66 and 1975-76. An all-India plan for the development of elementary education should then be prepared on the basis of these State Plans. In the light of the national plan thus finalised and approved by appropriate authorities, the State Governments should prepare during 1965-66 their fourth five-year plans for the development of elementary education.

In preparing the State plans for the development of elementary education, one point has to be emphasized. A programme of universal education is essentially a programme of equalising educational opportunities, irrespective of caste, race, religion, sex or even the place of residence. At present, a perfect equality of educational opportunity does not obtain in any State. Some districts are more advanced than others; the urban areas, as a rule, are more advanced than the rural ones; some classes in society take better advantage of educational facilities than others; and boys as a rule are better educated than girls. All these inequalities will have to be eliminated or reduced to a minimum in a programme of free and compulsory education for all children in the age-group 6-14. Adequate provision for this will have to be made in the State plans for the development of elementary education.

Equalisation of Educational Opportunities at State Level. A well-planned programme for the development of elementary education in a State would provide equality of educational opportunity to all the children in the State and would eliminate any differences that may exist now between one area and another. Similarly, a national plan for the development of elementary education would have to remove the existing inequalities in elementary education as between one State and another. This can be done only if the

Federal Government takes an active interest in the development of elementary education in every State and evolves a programme under which each State is assisted to reach the goal in the shortest time possible and necessary special assistance is provided to the less advanced States.

APPENDIX III

Financing of Elementary Education in India*

The object of this paper is to suggest a new system for the financing of elementary education in India, based on the principle of equalisation.

We selected this topic for several reasons. The first and foremost is the significance of elementary education which is the one level in which the entire population of the prescribed age-group is expected to participate. For a long time to come, this will also be the only education which the vast majority of children in the country will ever have. It can play a very significant role in unifying the people, in increasing productivity and in creating a new social order. It is also indispensable if equality of opportunity is to be fostered and if equality of status is to be approached. Secondly, the provision of universal elementary education forms one of the directive principles of State policy. Article 45 of the Constitution lays down that the State shall endeavour to provide free and compulsory education for all children until they complete fourteen years of age. No other sector of education has been so singled out, and this indicates the great significance which the framers of the Constitution attached to elementary education for providing social justice and stabilising democracy. Thirdly, the expenditure on elementary education now forms about 35 per cent of the total educational expenditure. As elementary education expands and is improved in quality, this proportion will tend to increase and ultimately it is expected that the expenditure on elementary education may form 50-60 per cent of the total educational expenditure—a fact which testifies to the relative priority and significance which attaches to this sector. Finally, the problem of elementary education is also of importance

*A Paper prepared in consultation with Dr. E. S. Lawler, consultant in Education Finance, Teachers College, Columbia University Contract Team in India.

because it is the "unfinished business" in education. Article 45 of the Constitution directed that free and compulsory education till the age of 14 was to be provided by 1960. This could not be done. A revised programme was then prepared with the object of fulfilling this constitutional directive by 1976. It will not be possible to adhere even to this programme and the general thinking now is that this goal may be reached by a few States in 1976, by some more in 1981 and by the others in 1986 or 1991. There is a very strong feeling in the country that the provision of universal elementary education is extremely vital to the overall progress of the people and that it will be disastrous to postpone this programme to so late a date. Any attempt to bring the goal nearer will necessarily indicate more attention being paid to the financial problems involved.

Another compelling reason for this choice was our considered opinion that in no other sector of education are problems of finance so vital as in elementary education. It is true that, even here, several significant problems of curriculum making, teaching methods, preparation of teachers, educating public opinion (especially in relation to the education of girls), preparation of text-books, teaching aids, etc. have still to be tackled; but these are comparatively easy of solution and they could also be more rapidly solved if the major problem of securing the large finances required for provision of universal elementary education of a reasonable standard could be tackled satisfactorily. The great importance of a study of the financial aspects of elementary education is thus obvious.

II

Basic Assumptions. For convenience of discussion, we would like to state, at the very outset, some of the basic assumptions underlying this paper. We realise that not everyone will accept all of them, but we do not propose to discuss them in detail because they are a little beside the main purpose of this study.

The first assumption is that the system of "multiple-source" financing of elementary education, which has been developed in India so far, will also continue in the future. At present, we find that elementary education is supported, to a varying extent, by the local communities or parents, by local authorities, by State Governments and by the Federal Government. Such a system is fully justified. The

local community or parents are interested in elementary education because their children are direct beneficiaries of the programme; the local authorities have no greater responsibility, nor a greater avenue for service than supporting and improving the elementary schools within their areas; the State Government is constitutionally responsible for the provision of elementary education to all children; and the Central Government has a responsibility to equalise educational opportunities in all parts of the Union. The Constitution also supports this view because it places the responsibility for the provision of universal elementary education upon the "State" which is defined, in Article 12, as inclusive of "the Government and Parliament of India, and the Government and legislature of each of the States, and of local or other authorities within the territory of India or under the control of the Government of India." We may also add that an analysis of the history of educational finance in India shows that a system of "multiple-source finance" is better than that of "single-source finance." In boom periods, the multiple-source system nets more revenues for elementary education than the single-source system for the simple reason that the effort to raise funds is made at several levels and through several different expedients. In lean periods also, the multiple-source system has proved to be better: it has a greater shock-absorbing capacity and the short-falls in any one source are generally made up, to some extent at least, by increased efforts in other sources.

The second assumption is that the elementary school teacher will receive a much better deal in future than what has been given to him in the past. The essence of educational improvement is an efficient, devoted, satisfied, well-educated and adequately trained elementary teacher; and it is probably on this score that the programmes of elementary education in India are failing most. The first and the most essential remedy is to provide a better remuneration and a more satisfactory system of old age benefits, with the ultimate objective of adopting a single scale of pay for all elementary and secondary school teachers—a reform which has now been adopted by almost all advanced countries. This will attract a much better type of person to the profession and will also make it possible to raise the minimum qualifications required of elementary teachers—they should all have completed the secondary school at least and a fair proportion of them should be graduates. It will

also be necessary to provide a minimum professional training of two years to university graduates and to raise the standard of training institutions substantially. There is hardly any provision for in-service training at present and early steps will have to be taken to provide regular institutionalised in-service training of two to three months to every elementary teacher in every five years of his service. These programmes will obviously cause a considerable increase in the cost due to teachers' salaries and their training. But there is no escape from the necessity of providing all the funds required for them.

The third assumption is that attempts will also be made to provide the essential ancillary services for students. This is the second weakest area in elementary education today. A vast majority of the students attending elementary schools are under-nourished; they are generally found to suffer from a number of illnesses which interfere with their growth—physical and mental; they do not often have adequate clothing; and many of them do not have the essential books or writing materials. Unless steps are taken to provide school meals, school uniforms, health services and free supplies of text-books and reading materials, the standard of education in elementary schools will not rise. The implication of these programmes is that the non-teacher costs of elementary teacher education (which come to only 11 per cent of the total direct expenditure on elementary schools at present) will have to be substantially increased.

The fourth assumption is that an elastic policy would be adopted with reference to pupil-teacher ratios. The past tradition has been to over-emphasize the pupil-teacher ratio and to keep the size of the class small—to about 34 children on rolls or about 28 in average attendance. At this stage of its socio-economic development, we wonder whether India can afford to have such small classes. They will inevitably result, as the past experience has shown, in two unwelcome developments: (1) a low remuneration for teachers, and (2) an inadequate expenditure on non-teacher costs or ancillary services to children. Probably, a breakthrough can be made by raising the pupil-teacher ratio so that, without an undue increase in the overall expenditure, it would be possible to give a better remuneration to teachers and also to provide ancillary services to students on a fairly adequate scale. As the resources available

increase, the pupil-teacher ratio could be reduced. This sequence of events happened in most countries where elementary education has been expanded, and probably the adoption of a deliberate policy on the same lines would help India best in expanding and improving her programmes of elementary education.

Realising that this is a very controversial issue, *we have decided to base our studies on the cost per pupil which is our fifth assumption.* There is a close relationship between the cost per pupil and (1) the average annual salary which could be paid to an elementary teacher, (2) the pupil-teacher ratio, and (3) proportion of teacher costs to the non-teacher costs (inclusive of ancillary services). We, therefore, felt that the adoption of "cost per pupil" as a basis for the policy of financing elementary education has the great advantage of accommodating every point of view and leaving the State Governments free to decide the remuneration of teachers, the pupil-teacher ratios and the extent to which ancillary services are to be provided. If some States want to adopt a high pupil-teacher ratio with a view to providing a better remuneration to teachers, they would be free to do so as long as the cost per pupil remains unchanged. On the other hand, if a State were to insist on a given pupil-teacher ratio, it will still find it possible to work within the given cost per pupil, either by reducing the remuneration of teachers or by cutting down the extent of ancillary services.

Our sixth and final assumption has been that, in the next fifteen years, a deliberate policy would be adopted to double the cost per pupil in elementary education (at constant prices) and to provide universal elementary education by 1981. The first part of this assumption would be a fairly good indication of the qualitative improvement which we visualise. The second part deals with the quantitative point of view and suggests that the total enrolment in classes I-VIII in 1981 would be about equal to the total population in the age-group 6-14.

Before leaving this topic, we would like to make one point clear. We have stated the above assumptions to explain the basis of the calculations made in this paper. The principle of equalisation which we advocate is, however, independent of them and will hold good in spite of any changes that might be made in these assumptions.

III

Total Expenditure on Elementary Education in 1961 and 1981. According to the census of 1961, the total population of children in the age-group 6-14 was 8,58,57,866 (for details, see Statistical Table I). The total enrolment in classes I-VIII in the same year was 4,16,98,630 or 48.6 per cent of the total population in the corresponding age-group (for details, see Statistical Table II). The total direct expenditure on elementary education in 1960-61 was Rs. 1,16,36,68,977 which works out roughly at Rs. 31.2 per pupil or Rs. 2.65 per head of population, (for details, see Statistical Table III). In addition, the total expenditure on the training of elementary teachers was Rs. 3,46,14,498 which works out to Rs. 0.93 per pupil or Rs. 0.08 per head of population (for details, see Statistical Table IV). The total expenditure on elementary education in 1961 was thus Rs. 2.73 per head of population or Rs. 32.13 per pupil.

In 1981, the total population of India is estimated to rise to 700 million and the total population in the age-group 6-14 is estimated to be about 140 million. We have assumed that the enrolment in classes I-VIII would also be 140 million (equal to the total population in the corresponding age-group) and that the cost per pupil would rise to Rs. 70 (this would include about Rs. 65 for direct costs of elementary education and Rs. 5 for indirect costs of teacher training). The total recurring expenditure on elementary education in 1981 would, therefore, have to be about Rs. 9,800 million.

A rough estimate can also be made of the non-recurring expenditure required for this programme. A very reasonable estimate is to assume a non-recurring expenditure of Rs. 200 per child for building and equipment (at 1960-61 prices). We may further assume that these facilities would have to be provided, not only for all the new enrolment in the Fourth, Fifth and Sixth Plans (77 million) but also for about 70 per cent of the enrolment at the end of the Third Plan (63 million). In other words, non-recurring expenditure at Rs. 200 per child would have to be provided for about 121 million children. The total expenditure would thus be Rs. 24,200 million spread over 15 years or Rs. 1,614 million per annum. There are some educationists who think that this estimate is on the high side and they would prefer to assume an expenditure of about Rs. 100

per child. Even on this conservative assumption, an expenditure of about Rs. 700 million per annum would be needed for non-recurring expenditure on elementary education during the next 15 years.

In 1981, therefore, a minimum expenditure of about Rs. 10,500 million (Rs. 9,800 million recurring and Rs. 700 million non-recurring) would be needed for elementary education which works out at about Rs. 15 per head of the population. This would roughly be about one-third of the total educational expenditure in 1981. In 1960-61, the total educational expenditure was Rs. 3,441 million or Rs. 7.7 per head of population. Since Independence, the total educational expenditure in India is increasing annually at about 11.65 per cent (compound interest law). In view of the large-scale expansion and qualitative improvement proposed to be brought about, the rate of increase of total educational expenditure during the next three Plans would have to be even higher. But even assuming that it continues to be the same, the total educational expenditure in 1980-81 would be Rs. 31,500 million in which case the above expenditure on elementary education would be about a third of the total educational expenditure.

Whether it would be possible to raise the total expenditure on elementary education from Rs. 2.66 per head of population in 1961 (or 0.8 per cent of the National Dividend of Rs. 330) to Rs. 15 (or about 2.0 per cent of the estimated National Dividend of Rs. 750 in 1981) it is not for us to say. We would, however, emphasize two points: (1) the expenditure indicated by us above, at constant prices, is probably the minimum needed if India is to have a fairly satisfactory system of elementary education; and (2) the problems of elementary education in India cannot be solved unless two other basic problems are satisfactorily tackled simultaneously, viz. (a) reduction of the birth-rate which will reduce the number of children to be provided with educational facilities, and (b) rapid economic development which will increase the National Dividend and the capacity of the average citizen to support a more satisfying programme of education.

The problems of financing of elementary education can be divided into two broad categories. The first category includes problems leading to the determination of the total number of children to be educated, the cost per pupil and the total amount

required for financing a given programme of elementary education and the second includes problems of the manner in which agencies at different levels—Central, State, local and community—can be harnessed to provide financial resources for the support of elementary schools and the manner in which grants-in-aid for elementary education could be given by an agency at a higher level to one at a lower level. In this paper, we are not directly concerned with the problems included in the first category and we need make no more detailed examination of the problems involved than what has been stated in this section. We would, however, like to concentrate upon the problems involved in the second category: (a) the manner in which the total expenditure on elementary education would be shared by the Central, State and local Governments and the local communities; and (b) the manner in which grants-in-aid could be provided by the Centre to the States, by the States to the local bodies and by the States or local bodies to the local communities.

IV

Central Grants to States on Account of Elementary Education. To begin with, let us first discuss the problem of Central grants to State Governments for elementary education.

At present, Central grants to State Governments for all educational purposes are given for developmental programmes only, i.e. for programmes included in the five-year plans. These grants are, therefore, available only for a period of five years at a time. At the end of the Plan period, the level of recurring expenditure reached on education is treated as "committed" and does not receive any grant-in-aid from the Centre, just as there is no grant-in-aid for the "committed" expenditure at the beginning of the Plan period. It is true that the Finance Commission proposes, every five years, Central grants to State Governments to enable them to balance their budgets on account of committed expenditure. But these grants are not generally earmarked. For all practical purposes therefore, it may be said that Central grants to education in general (and, therefore, for elementary education also) are given for developmental expenditure only and that the committed expenditure on account of these programmes is not specifically assisted.

This method of grant-in-aid has one great defect. In elementary education, the recurring committed expenditure is far greater than the developmental expenditure. At the end of each Plan, the recurring committed expenditure of the States on account of elementary education increases very considerably, thereby making it more difficult for the State Governments to raise the resources required for new developmental expenditure. At the end of the Third Plan, the committed expenditure of the States on account of elementary education would be so heavy that they would not be in a position to meet it unless very substantial grants-in-aid are given. Their capacity to make further efforts for the development of elementary education will, therefore, be extremely limited and the situation will get worse as each Plan is completed. Some States have already begun to refuse hundred per cent developmental grants from the Centre on the ground that they would not be able to raise the funds needed for the committed expenditure involved. This attitude will become more general as time passes. In our opinion, therefore, a stage has now been reached when the old policy of giving grants-in-aid for developmental programmes only has outlived its utility and no worth while progress on that basis now seems possible. *We, therefore, strongly recommend that this policy should be given up and replaced by another under which Central grants to State Governments would be given for all expenditure on elementary education—committed as well as developmental, recurring as well as non-recurring.* It is this policy alone which will bring about a rapid expansion of elementary education which everyone in the country desires.

This recommendation involves another. In the First Plan, Central grants-in-aid were given for individual schemes of educational development. In practice, the system became extremely complex for three reasons: (1) the number of schemes which earned Central assistance was very large; (2) the rate of Central grant-in-aid varied from scheme to scheme; (3) even in the same scheme, the rate of grant-in-aid varied sometimes from non-recurring to recurring expenditure. Gradually, this complexity was eliminated by abolishing the grants for individual schemes and by instituting cumulative grant-in-aid for four sectors—elementary education, secondary education, higher education and other educational programmes. Even this method was found to lead to complications and, in the

Third Five Year Plan, grants have been given for the Plan as a whole. *The recommendation made above implies a reversal of this process and the institution of a special grant-in-aid for elementary education.* This step is necessary for several reasons. In the first place, it has been found that the cause of education as a whole, and of elementary education in particular, suffers heavily in the present system of a block grant for the Plan as a whole because it is very difficult to get adequate priorities for education (or elementary education) at the State level. Secondly, elementary education, as pointed out above, is the single most important programme in education which has been isolated by the Constitution for special emphasis. It would, therefore, be in the fitness of things to earmark a special grant for elementary education, if not for any other sector. Thirdly, expenditure on elementary education forms a very large proportion of the State budget—it now accounts for nearly 10 per cent of the total State budget, and in the days to come it will easily amount to about 15 per cent.

In this connection, we would like to point out that the Third Finance Commission has recommended that it would be desirable to give Central grants for specific purposes which are considered important. There can be no more important subject to be singled out for such treatment than the development of elementary education.

If these recommendations are agreed to, the question arises: what should be the basis on which the Central grants should be given to the different State Governments on account of elementary education? Our recommendation in this context is that the *Central grants to State Governments on account of elementary education should be based on the principle of equalisation.* In other words, the Central grants to State Governments should be planned in such a way as to ensure the provision of the same standard of elementary education (as indicated by cost per pupil) in every part of the country on the basis of the same local effort (as indicated by the proportion of its income which each State raises for elementary education).

An illustration would make this point clear. Let us assume that, at the end of the Fourth Plan, the cost per pupil in elementary schools would be raised to Rs. 45. Let us further assume that, by the end of the Fourth Plan each State would be required to spend one per cent of its income for the purpose of elementary education.

Since the ability to support elementary education, as indicated by the State income, varies from State to State, this equal effort on the part of each State would obviously produce different amounts in different States. In one State, for instance, it may produce as little as Rs. 20 per pupil and in another, as much as Rs. 35 per pupil. The Central grant to the first State on the basis of equalisation would, therefore, be Rs. 25 per pupil and that to the second State would be Rs. 10 per pupil. If the same basis is adopted for all the States, at the end of the Fourth Plan it would be possible for every State to provide Rs. 45 for the education of each child, by raising 1 per cent of the State income for elementary education.

One clarification is needed. The above statement should not be taken to mean that the cost per pupil would exactly be Rs. 45 in all the States at the end of the Fourth Plan. Such uniformity is neither possible nor desirable. In some States, the cost may fall below Rs. 45 and may remain only at Rs. 40, the reason being that the State is not making the necessary effort to raise local resources. The Central grant, therefore, would be limited to the difference between a cost of Rs. 40 per pupil and the amount per pupil which would have been raised had it made the given local effort of spending 1 per cent of its income on elementary education. The State thus stands to lose for its failure to tax itself. On the other hand, in another State the cost per pupil may be raised to Rs. 60. In this case, the Central grant-in-aid would still be limited to the cost per pupil of Rs. 45 and the additional amount of Rs. 15 per pupil would have to be provided by the State concerned from its own resources. In fact, such inequalities, both in result and in effort, will always remain because the States would be making different efforts for providing elementary education and would accord it different priorities. What will happen under the equalisation programme is that a certain minimum expenditure per pupil which would be prescribed from time to time would be attainable in *every* State through a *given minimum effort* on the part of the State. While providing equality of opportunity, therefore, this basis of grant-in-aid also leaves room for individual States to forge ahead with the help of local resources. As time passes and the wealth of the country increases, this floor of expenditure per pupil would be continually increased, thus providing more satisfying standards of education to all the people.

V

Existing Inequalities in the Development of Elementary Education in the Different States: The need for such equalisation would be clear if we examine the existing position of elementary education in the different States. For the purpose of this study, we shall restrict our enquiry to the year 1960-61, the last year of the Second Five Year Plan and the latest year for which detailed data are available.

The first thing that strikes a student from the perusal of the relevant facts is that *the different States of the Indian Union are faced with a problem in elementary education whose complexity, extent and difficulty vary from area to area.* For instance, the problem of elementary education involves a number of physical, social, cultural and economic factors such as the following.

(*a*) *The Density of Population.* It is easier to provide elementary schools in thickly populated areas while it becomes costlier and more difficult to do so in places of scattered and thin population.

(*b*) *The Proportion of Small Habitations.* It is difficult to provide facilities for elementary education in small habitations with a population of less than 300 or so. The States which have very large proportion of such habitations have, therefore, a more difficult task to perform.

(*c*) *The Population of the Scheduled Castes and Scheduled Tribes.* These weaker sections of the community are the poorest and the least educated, and their proportion in the total population varies from State to State. A State with a large population of Scheduled Castes and Scheduled Tribes (e.g. Orissa) has a far more difficult task than another which has a comparatively smaller proportion of population of these weaker groups (e.g. Maharashtra).

(*d*) *Traditional Prejudices against the Education of Girls.* Where these are stronger (e.g. Uttar Pradesh and Rajasthan) the problem becomes more difficult than in any area where they have already been overcome (e.g. Kerala).

(*e*) *The Proportion of Children in Age-group 6-14 to the Total Population.* The number of children in the age-group 6-14 and its proportion to the total population depends upon the birth and death rates which vary from State to State. Consequently, some States have a proportionally larger load of children to be educated than others.

(f) The Proportion of Rural Population in the Total. The more urbanised States are richer and it is also easier to provide facilities for elementary education in urban areas than in rural areas. States with a large proportion of rural population, therefore, are in a less advantageous position than those which have comparatively large urban population.

The variations in all these respects from State to State are given in Table I.

It will be seen that each one of these States shows large variations in every sector. With regard to density of population, for instance, the variations are from 153 persons per square mile in Rajasthan and 189 persons per square mile in Madhya Pradesh on the one hand to 1,032 persons per square mile in West Bengal and 1,127 per square mile in Kerala on the other. In Madhya Pradesh, the existence of forest areas and tribal population which lives in scattered habitations are responsible for the low density of population; while in Rajasthan, the low density is mainly due to the desert conditions in the western part. In Kerala and West Bengal, the average densities of population are very high, and in some districts the densities are even higher.

Similarly in respect of small and scattered habitations, we find that their proportion is the highest in Rajasthan (71.7 per cent) and in Uttar Pradesh (77.9 per cent). In Kerala, this is extremely low, i.e. 14.1 per cent; because in the coastal part of Kerala there are no villages as such and the entire population lives in a continuous pattern. Excluding this extreme case, the percentage of habitations with less than 300 people is low enough in Andhra Pradesh (50.7 per cent), Gujerat, Maharashtra (51.6 per cent) and Madras (54 per cent).

The population of the scheduled castes and scheduled tribes also shows considerable variations. The population of the scheduled castes is highest in Uttar Pradesh (20.91 per cent), Punjab (20.38 per cent) and West Bengal (19.9 per cent). This is lowest in Maharashtra (5.61 per cent), Assam (6.17 per cent), and Gujerat (6.63 per cent). The scheduled tribes are found in large numbers in Assam (17.42 per cent), Gujerat (13.35 per cent), Madhya Pradesh (20.63 per cent), Orissa (24.07 per cent) and Rajasthan (11.46 per cent). These hardly exist in Jammu and Kashmir and Uttar Pradesh. Taking these two communities together, Orissa has the heaviest burden

TABLE I

COMPLEXITY, EXTENT AND DIFFICULTY OF THE PROBLEMS OF ELEMENTARY EDUCATION FROM STATE TO STATE (1960-61)

State	*Density of population per sq. mile*	*Percentage of habitations with a population of less than 300 as given in the educational survey*	*Percentage of scheduled castes population*	*Percentage of scheduled tribes population*	*Percentage of children in the age-group 6-14 to total population*	*Percentage of rural population*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	339	50.7	13.82	3.68	18.85	82.56
Assam	252	64.9	6.17	17.42	21.19	92.31
Bihar	691	65.0	14.07	9.05	20.25	91.57
Gujerat	286	51.6 (as in Old Bombay)	6.63	13.35	20.79	74.23
Jammu and Kashmir	N.A.	73.0	7.54	—	19.42	83.34
Kerala	1,127	14.1	8.41	1.23	20.13	84.89
Madhya Pradesh	189	69.1	13.14	20.63	18.93	85.71
Madras	669	54.0	18.03	0.75	18.06	73.31
Maharashtra	333	See Gujerat above	5.63	6.06	19.72	71.78
Mysore	318	60.6	13.22	0.81	19.32	77.67
Orissa	292	68.9	15.75	24.07	19.36	93.68
Punjab	430	54.7	20.38	0.07	21.32	79.87
Rajasthan	153	71.7	16.67	11.46	20.62	83.72
Uttar Pradesh	649	77.9	20.91	—	19.14	87.15
West Bengal	1,032	N.A.	19.90	5.91	19.64	75.55

to carry (39.82 per cent). On the other hand, Jammu and Kashmir has the lowest load (7.54 per cent).

With regard to the percentage of children in the age-group 6-14 to the total population, the highest proportion is found in Punjab (21.32 per cent) and lowest in Andhra Pradesh (18.85 per cent).

The rural population is highest in Orissa (93.68 per cent) and Assam (92.31 per cent). It is lowest in Maharashtra (71.78 per cent), Madras (73.31 per cent) and West Bengal (75.55 per cent).

It may not be possible, nor even necessary, to combine the effect of all these different handicaps in each State. The statistics given above will, however, clearly show how the complexity, extent and difficulty of providing universal elementary education vary from State to State.

The second point which emerges from a comparative study of the States is that their ability to support elementary education as well as their actual effort to finance it also show considerable variations. By the expression "ability," we mean the national income per head of population as calculated from time to time and it will be readily agreed that this is the best measure available to show the capacity of each State to tax itself for all purposes, including elementary education. By the expression "effort," we mean the actual expenditure which is incurred in the State for elementary education. This will be denoted by the proportion which the total expenditure incurred in the State on elementary education bears to its total income or ability. Table II gives the latest available data on these two points.

It will be seen, from column 4, that the ability of the States to finance elementary education varies considerably. This is lowest in Bihar (Rs. 200 per capita) and highest in Punjab (Rs. 398 per capita). The variation, therefore, is as wide as 1:2. A reference to columns 5 and 6 will similarly show that the total expenditure on elementary education, as well as its proportion to the total State income, varies considerably. For instance, Kerala makes the largest effort to provide elementary education and spends as much as 2.07 per cent of the State's income on it. Then comes Maharashtra which spends 1.24 per cent of its income on elementary education, and that is followed by Mysore with 1.21 per cent. At the other end are the States of Uttar Pradesh and Orissa, each of which spends 0.61 of the State income on elementary education, followed by

TABLE II

ABILITY AND EFFORT OF STATES TO SUPPORT ELEMENTARY EDUCATION (1960-61)

State	*Total State income (1958-59) (in crores of rupees)*	*Total State income per head of population or ability (1960-61)*	*Total Expenditure on education from all sources (1960-61) (in thousands of rupees)*	*Percentage of total expenditure on elementary education(1960-61) of total State income (1958-59) or effort*
Andhra Pradesh	950	276	95,618	1.01
Assam	339	310	33,008	0.97
Bihar	894	200	76,093	0.85
Gujerat	642	326	76,279	1.19
Jammu and Kashmir	68*	216*	7,643	1.12
Kerala	436	271	90,217	2.07
Madhya Pradesh	901	293	91,212	1.01
Madras	996	303	114,872	1.15
Maharashtra	1,356	369	168,395	1.24
Mysore	651	290	78,736	1.21
Orissa	452	271	27,554	0.61
Punjab	765	398	53,639	0.70
Rajasthan	581	317	50,433	0.87
Uttar Pradesh	1,835	259	111,249	0.61
West Bengal	902**	282**	86,681	0.96

* For 1955-56.

** For 1957-58.

N.B. The figures in column 5 pertain to total direct expenditure on teacher training schools.

Rajasthan which spends 0.70 per cent. The efforts which the different States make to provide elementary education, therefore, show an even wider variation than their ability or the State income. The latter shows variations of the order of 1:2 while the former shows variation of the order of 1:3.4.

With these large variations in the complexity, extent and difficulty of the problems to be faced and also in the ability and effort to support elementary education, it is hardly a matter for surprise

if the accomplishment of the different States in elementary education also shows considerable variations. This "accomplishment" may be defined in a number of ways; and for convenience of reference, we would adopt the following criteria.

Quantitative. (*a*) Enrolment in classes I-VIII as proportion of the total population of children in the age-group 6-14—separately for boys and girls; and (*b*) the percentage of literacy—separately for men and women.

Qualitative. (*a*) The general education of teachers as indicated by the proportion of matriculates and above in the total number of teachers; (*b*) percentage of trained teachers and the duration of the training course; (*c*) proportion of women teachers to the total number of elementary teachers; (*d*) the proportion of salaries of teachers to total direct expenditure on elementary schools—the higher this proportion, the weaker will be the system because essential expenditure on non-teacher costs tends to be neglected; and (*e*) the cost per pupil.

The variations from State to State under these heads are given in Tables III and IV.

Table III gives some important data regarding enrolment and costs in elementary schools. It will be seen therefrom that Kerala shows the best enrolment of 90.7 per cent (98.9 per cent boys and 82.5 per cent girls). Next comes Madras with 66.1 per cent (83.3 per cent boys and 49.0 per cent girls). This is followed by Maharashtra (60.2 per cent), Gujerat (56.3 per cent), Mysore (55.6 per cent), Assam (53.5 per cent), Andhra Pradesh (49.9 per cent) and West Bengal (49.9 per cent). At the other end are Rajasthan with 31.2 per cent (50.2 per cent boys and 12.1 per cent girls), Uttar Pradesh with 43.8 per cent (54 per cent boys and 14.5 per cent girls), Madhya Pradesh with 37.7 per cent (58.2 per cent boys and 16.4 per cent girls), Jammu and Kashmir with 32.9 per cent and Bihar 39.5 per cent. By and large, it may be said that the enrolment of girls is much poorer as compared to that of boys. The six backward States are Bihar, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan and U.P.

Next to enrolment, the important factor influencing the quality and expenditure is the pupil-teacher ratio. It will be seen from the above table that, here also, there are large variations. The highest pupil-teacher ratio is in Bihar (48:1) due mainly to the fact that

TABLE III

ENROLMENT, PUPIL-TEACHER RATIO, AVERAGE ANNUAL SALARY OF TEACHERS, PROPORTION OF TEACHER-COSTS, AND COST PER PUPIL IN ELEMENTARY EDUCATION
(1960-61)

State	*Enrolment in classes I-VIII as % of total population in the age-group 6-14*			*Average annual salary of elementary teachers*	*Percentage of salary of teachers to total direct expenditure on elementary schools*	*Number of pupils per teacher*	*Cost per pupil*
	Boys	*Girls*	*Total*	(*Rs.*)			(*Rs.*)
Andhra Pradesh	63.5	36.3	49.9	948.8	89.3	35	30.6
Assam	68.2	38.4	53.5	776.2	85.1	35	25.8
Bihar	60.3	17.5	39.5	769.8	92.0	42	20.1
Jammu and Kashmir	59.3	17.0	38.9	800.1	78.4	31	32.6
Gujerat	71.7	40.0	56.3	1,113.0	88.1	38	33.1
Kerala	98.9	82.5	90.7	1,075.5	90.7	34	34.7
Madhya Pradesh	58.2	16.4	37.7	764.6	68.8	27	40.5
Madras	83.3	49.0	66.1	908.0	87.7	33	31.8
Maharashtra	75.6	43.7	60.2	1,222.6	85.9	37	38.7
Mysore	70.9	40.1	55.6	972.2	91.5	34	31.5
Orissa	63.6	26.3	44.7	560.2	89.4	34	18.4
Punjab	57.9	27.1	43.4	1,212.4	84.0	36	40.4
Rajasthan	50.2	12.1	31.8	988.0	88.2	28	39.4
Uttar Pradesh	54.0	14.5	34.8	669.8	77.4	37	23.5
West Bengal	65.2	34.1	49.9	821.3	90.3	30	30.1

enrolment has suddenly increased and it has not been possible for the State Government to provide the necessary teachers. At the other extreme is Madras with a pupil-teacher ratio of 23 (in the last three years, however, the pupil-teacher ratio in Madras has increased considerably) and Madhya Pradesh with a pupil-teacher ratio of 37.

The average annual salary of elementary teachers is also given in the above table. It is highest in Maharashtra (Rs. 1, 223) and lowest in Orissa (Rs. 560). But the scales of pay have been substantially revised in Orissa, Assam, West Bengal, Mysore and Madhya Pradesh in the Third Five Year Plan, and today the lowest

TABLE IV

LITERACY AND TEACHERS IN THE DIFFERENT STATES (1960-61)

State	Percentage of literacy (1961 census)			Percentage of teachers, matriculates and above, to the total number of elementary teachers	Duration of the training course in years	Percentage of trained teachers			Proportion of women teachers to number of teachers
	Boys	Girls	Total			Men	Women	Total	
Andhra Pradesh	30	12	21	37.2	Two	80.1	90.1	82.0	19.0
Assam	37	16	27	18.4	One	36.3	33.4	35.9	13.5
Bihar	30	7	18	36.4	Two	70.2	51.2	69.0	8.5
Gujerat	41	19	31	36.6	,,	45.8	54.8	48.3	26.2
Jammu and Kashmir	17	4	11	69.2	One	52.2	71.1	55.0	15.0
Kerala	55	39	47	45.6	Two	87.3	84.1	85.9	42.9
Madhya Pradesh	27	7	17	36.8	One	50.3	56.0	50.9	11.2
Madras	45	18	31	36.5	Two	94.7	98.7	96.1	34.4
Maharashtra	12	17	30	33.0	,,	59.4	74.1	62.7	22.4
Mysore	36	14	25	39.6	One	49.7	61.9	51.9	17.9
Orissa	35	9	22	15.7	Two	37.6	46.3	37.9	2.7
Punjab	33	14	24	70.3	,,	91.7	91.6	91.7	27.1
Rajasthan	24	6	15	76.0	One	51.4	45.3	50.6	12.3
Uttar Pradesh	27	7	18	29.1	Two	78.7	53.0	75.3	13.0
West Bengal	40	17	29	67.7	One	35.4	35.2	35.4	10·3

average annual salary of elementary teachers will be in Uttar Pradesh and Bihar.

The percentage of the salaries of teachers to total direct expenditure on elementary schools also varies from 92 per cent in Bihar and 91.5 per cent in Mysore to 68.8 per cent in Madhya Pradesh and 77.4 per cent in Uttar Pradesh. As stated earlier, a high ratio in this regard means a general neglect of essential non-teacher costs required for elementary schools and results in poorer standards.

As explained in Appendix I, there is an intimate relationship between the average annual salary of elementary teachers, the proportion of teacher costs to non-teacher costs and the pupil-teacher ratio.) Consequently, the cost per pupil also varies greatly from State to State. It is the highest in Madhya Pradesh (Rs. 40.5); not so much because of high salaries, as because of the low pupil-teacher ratio and greater weightage given to the non-teacher costs. Then comes Punjab (Rs. 40.4), where the cost per pupil is high mainly because of the good salary provided to the elementary teachers. At the other end are Orissa (Rs. 19.4), Bihar (Rs. 20.1) and Uttar Pradesh (Rs. 23.5). The salaries in Orissa having been revised, the cost per pupil will also go up in the Third Plan. It will be seen that the variation in the cost per pupil also is as wide as 1:2.

A reference to Table IV will show that similar differences are found in certain other allied sectors also. For instance, the percentage of literacy varies from 47 in Kerala (55 for men and 39 for women) to 11 in Jammu and Kashmir (17 for men and 4 for women). The qualifications of teachers also vary. The matriculate and graduate teachers form 76 per cent of the total in Rajasthan, 70.3 per cent in Punjab and 69.2 per cent in Jammu and Kashmir. But they form only 15.7 per cent in Orissa and 18.4 per cent in Assam. The duration of the training course is two years in Andhra Pradesh, Bihar, Gujerat, Kerala, Madras, Maharashtra, Orissa, Punjab and Uttar Pradesh, and only one year in the remaining States. The percentage of trained teachers is very high in Madras (96.1 per cent), Punjab (91.7 per cent) and Kerala (85.9 per cent). It is lowest in West Bengal (35.4 per cent) and Assam (35.9 per cent). The proportion of women teachers is the highest in Kerala (42.9 per cent) and the lowest in Madhya Pradesh (11.2 per cent).

It is not suggested that all such variations should or could be

made to disappear. But the principle of equalisation, if adopted, will secure two results: (*a*) no State in the Union will be allowed to fall below a minimum level which would be the prescribed minimum; and (*b*) *the same standard* of educational facilities (roughly denoted by the cost per pupil) will be provided by the *same given effort* on the part of the State concerned, in every area of the Union. Moreover, this attempt at equalisation will also enable the more progressive States to forge ahead with the help of their own local resources. This will, at some later stage, necessitate the raising of the minimum level prescribed. A process of going from one stage of development of elementary education to the next higher one will thus be built within the system itself.

VI

Basis of Equalisation Grants. Having thus established the need to provide equalisation grants for elementary education from the Centre to the States, we shall now proceed to discuss the possible basis on which such grants can be made in the near future.

Three alternative bases have been suggested in the different writings on the subject.

(*a*) *The first basis suggested is that the Central grant should be related to the population of the State concerned.* The main argument in this proposal is that the expenditure on elementary education gets ultimately related to the number of pupils who, in their turn, are related to the total population. Simplicity of calculations is another point in its favour. We are not, however, recommending this basis for two reasons.

(*i*) The number of children in the age-group 6-14 does not bear the same ratio to the total population in every State (this has already been shown earlier in Table I). An equalisation grant based on population would, therefore, favour those States where the proportion of children in the age-group 6-14 is lower.

(*ii*) Secondly, this basis would work satisfactorily after all the children are enrolled in schools. In the present situation in India we have not enrolled even 40 per cent of the total number of children enrolled in some States. An equalisation grant related to population would, therefore, earn amounts far in excess of actual expenditure in such States.

(*b*) The second suggestion is that *the Central grant to the States should be related to the salaries of teachers and should approximately be about 50 per cent of the total expenditure on salaries and allowances of elementary teachers.* The underlying assumption of this proposal is that the non-teacher costs would form about 30 per cent of the total expenditure on elementary education and would be shared, broadly on 50:50 basis, between the States and the local bodies or communities. The teacher costs would form about 70 per cent of the total direct expenditure on elementary education and would be shared by the Centre and the States broadly on a 50:50 basis. In the last analysis, therefore, about 35 per cent of the total expenditure on elementary education would be borne by the Centre, about 50 per cent by the State Governments, and about 15 per cent by the local bodies and local communities. We broadly accept this rough allocation of the total expenditure between the Centre, the States and the local bodies. We also agree to another advantage claimed in this proposal that it will enable the State Governments to raise salaries of elementary teachers—which is an urgently needed reform. If this basis is to be adopted, the Centre will have to lay down, from time to time, the pupil-teacher ratio and minimum average annual salary of the teachers on the basis of which the Central equalisation grants would be given. It would then be open to the States to adopt a higher or lower pupil-teacher ratio and give higher (but not lower) salaries and meet the extra expenditure involved from their own resources. We have no theoretical objection to the adoption of this basis, but as we see it, this basis almost amounts to a grant-in-aid on the cost per pupil basis which, besides being simpler, has the further advantage of encouraging expenditure on contingencies or equipment and the provision of ancillary services. In our opinion, a programme of school meals is very important in the present context in India and should also be assisted by the Centre.

(*c*) *The third basis proposed for adoption is the cost per pupil.* This has several advantages. In the first place, it gives considerable latitude to the States to vary the different factors involved—salaries of teachers, pupil-teacher ratios and proportion of teacher-costs to non-teacher costs. Secondly, it provides aid not only to one or two items of the programme, but to all its different aspects. This is a distinct advantage because the programme of elementary

education has, in practice, to be regarded as an integrated whole. Thirdly, it is possible to combine within it, if necessary, certain safeguards relating to such essential programmes as salaries of teachers or the provision of school meals by earmarking part of the assistance to these programmes or by making it conditional upon the fulfilment of certain prescribed conditions. On the whole, therefore, *we strongly recommend the adoption of the cost per pupil as the basis for equalisation grants proposed from the Centre to the States.*

Incidentally, it may be pointed out that in the United States, where equalisation grants are given by the State to the local authorities, the basis of grants adopted is either (a) the class-room expenditure, or (b) the cost per pupil. The last two bases suggested by us above correspond to these two practices. In the conditions as they obtain in India today, however, the basis of cost per pupil would be more advantageous, educationally and administratively.

Fixation of the Central Grants to States for Elementary Education on the Basis of Equalisation at the end of the Third Plan (1965-66). Having discussed the basis on which Central grants to States for elementary education on the principle of equalisation would be calculated, viz. the cost per pupil, *we shall now have to decide the date from which this new basis of equalisation grants would be introduced. In our opinion, the most convenient date for the purpose would be the end of the Third Five Year Plan or 1965-66.* This will give nearly two years to make the preliminary arrangements. Besides, it will not upset any existing arrangement for the Third Plan. It would rather start the programme of expanding and improving elementary education to be included in the Fourth Five Year Plan on a scientific and adequate basis.

For this purpose, *we will have to determine the entire committed expenditure on account of elementary education as it would be at the end of the Third Five Year Plan and also decide what the share of the Centre would be in this total expenditure.* Our own estimate of these is given below.

(1) At the end of the Second Five Year Plan (1960-61), the total expenditure on elementary education was Rs. 1198.4 million as compared to Rs. 417.4 million in 1949-50 which implies an annual increase of about 10 per cent per annum (compound interest law). In the Third Five Year Plan, the rate of growth of the expenditure

on elementary education would be larger than in the past because the development of elementary education has been emphasized in the Plan (elementary education receives Rs. 2,090 million or about 51 per cent of the Plan outlay on general education) and because the actual enrolments have even exceeded the targets originally fixed. In our opinion, therefore, the total committed expenditure on elementary education at the end of the Third Five Year Plan would be about Rs. 2,100 million which implies an annual increase of about 12 per cent per year in the Third Five Year Plan. As against this expenditure, the total enrolment is expected to be about 63 million which implies that the cost per pupil would be about Rs. 33.33 as against Rs. 32.13 in 1960-61. Contrary to expectations, we feel that the cost per pupil at the end of the Third Five Year Plan would be almost the same as at the end of the Second Five Year Plan because the rise in enrolments and pupil-teacher ratios has been very steep and the total investment on elementary education has not increased according to expectations. This obviously implies some deterioration in standards, especially if allowance is made for the rise in prices.

(2) The total expenditure on elementary education would, therefore, rise to Rs. 2,100 million by 1965-66. The total national income is expected to rise to Rs. 176,000 million by the same date. At the end of the Third Five Year Plan, therefore, the total expenditure on elementary education is expected to rise to 1.2 per cent of the national income (the total expenditure on all education is expected to rise by the same date to about 3 per cent of the national income).

(3) We have already recommended that the Centre should bear about one-third of the total expenditure on elementary education. We, therefore, feel that the States should be required to make an effort equal to 0.8 per cent of their income and that the Central grant on equalisation basis should amount to 0.4 per cent of the national income.

The proposals made above are for India as a whole, and do not apply to any given State. From the theoretical point of view, however, they may be said to apply to the "average State," i.e. a State which satisfies two conditions.

(a) Its income per capita is equal to the average income per capita for the country as a whole; and (b) the proportion of whose popula-

tion enrolled in elementary schools is also equal to the similar average for the country as a whole. Obviously, such an "average State" will generally remain a mathematical abstraction and *a practical method will have to be devised for deciding the quantum of aid to be given to each individual State of the Union, once the programme for the country as a whole is decided.* This can be done with the help of the following formula:

Let Pm = contribution per pupil of the average State
Po = contribution per pupil of any given State
Z = amount guaranteed per pupil in the minimum programme
Qm = amount of aid per pupil of the average State
Qo = amount of aid per pupil for any given State
K = proportion of the programme to be derived from the States
$= \frac{Pm}{Z}$
Ro = ratio of ability of any given State to ability of average State
$= \frac{Po}{Pm}$

Now $Po = \frac{Po}{Pm} \times Pm = Ro \times Pm$, and $Pm = KZ$

Substituting, $Po = KZRo$
Now $Qo = Z - Po$
$= Z - KZRo$
$= Z(1 - KRo)$ .....(1)

At the end of the Third Five Year Plan

Pm = contribution per pupil of the average State = Rs. 22.22
Z = amount guaranteed per pupil in the minimum programme = Rs. 33.33
Qm = amount of aid per pupil of the average State = Rs. 11.11
K = proportion of the programme to be derived from the States = 2/3.

On these bases, we will have to calculate Qo or the amount of aid per pupil in any given State. This can be done on the basis of the above formula.

Let us assume that, in 1965-66, the income per pupil (i.e. the total State income divided by the number of pupils enrolled in elementary schools) for the country as a whole is Rs. 3,000 and that it varies

from Rs. 2,000 in the poorest State (Bihar) to Rs. 4,000 in the richest State (Punjab). The above formula will help us to calculate the Central aid per pupil for these two States without altering the total liability of the Centre to assist the programme as a whole at one-third of its total cost.

The aid per pupil for Bihar would, for instance, be the following:

Central aid per pupil = Rs. $Z(1 - KRo)$
$= \text{Rs. } 33.33 \left(1 - \frac{2}{3} \times \frac{2000}{3000}\right)$
$= \text{Rs. } 33.33 \left(1 - \frac{4}{9}\right)$
$= \text{Rs. } 33.33 \left(-\frac{5}{9}\right)$
$= \text{Rs. } 18.52$

Similarly, the aid per pupil in the Punjab would be as follows :

Central aid per pupil = Rs. $Z(1 - KRo)$
$= \text{Rs. } 33.33 \left(1 - \frac{2}{3} \times \frac{4000}{3000}\right)$
$= \text{Rs. } 33.33 \left(1 - \frac{8}{9}\right)$
$= \text{Rs. } 33.33 \left(\frac{1}{9}\right)$
$= \text{Rs. } 3.7$

This will show how the Central aid will be greater for poorer States and smaller for the richer States.

Once the Central aid to the States on account of elementary education is fixed at the end of the Third Five Year Plan, the next step would be to indicate how the programme would be developed further, quantitatively and qualitatively, from Plan to Plan. Our suggestions in this respect are: (1) the Centre should indicate the cost per pupil that it expects to attain for the country as a whole by the end of each Plan (Fourth, Fifth and Sixth); (2) the Centre should also indicate the enrolments that should be reached by the end of each Plan (Fourth, Fifth and Sixth); (3) the Centre should also lay down, for each Plan, the share of the total expenditure which it expects the States to raise (as we have indicated already, this should be about two-thirds of the total expenditure).

If these three steps are taken, the aid to be given by the Centre would also automatically become determinate. An indication of the proposed programme which may be kept in view for this purpose has been given below on the assumption that the directive of Article 45 of the Constitution would be fulfilled by 1981.

	1965-66	1970-71	1975-76	1980-81
Enrolment in classes I-VIII (in millions)	63	92	120	140
Cost per pupil (in rupees)	33.33	40	50	70
Programmed expenditure on elementary education (in millions of rupees)				
(a) Recurring	2,100	3,680	6,000	9,800
(b) Non-recurring	—	96	300	700
TOTAL	2,100	3,776	6,300	10,500
National income (in millions of rupees)	176,000	236,000	373,000	525,000
Percentage of national income spent on elementary education	1.2	1.6	2.0	2.0

We have not made any attempt to indicate how the Central aid proposed to be given under such equalisation programme would vary from State to State at the end of the Third, Fourth, Fifth and the Sixth Plan. Any attempt to do so involves a large number of assumptions regarding (1) the rate of increase of population in each State, (2) the rate of increase of the child population in each State, (3) the rate at which enrolments in elementary schools would increase in each State, and (4) the rate at which the total income would increase in each State. Some assumptions on all these subheads could be made; but their total effect would be to make the final figures very unreliable. We have, therefore, contented ourselves by indicating the broad principle of equalisation and also the programme for the country as a whole. On the basis of the recommendations made by us, it should be possible to work out a Central aid programme for each State of the Indian Union at any given time.

In the practical administration of the aid programme, *certain precautions would have to be taken to see that the aid is not misused and that it promotes the best interests of the programme.* The following clarifications would, therefore, have to be made.

(1) A certain cost per pupil would be assumed as the basis of the equalisation programme drawn up from time to time. But it is open to a State to spend a larger amount per pupil. The Central aid to such a State, however, will only be given on the basis of cost per pupil assumed in the equalisation programme. On the other hand, a State may spend a smaller amount per pupil than what has been assumed in the equalisation programme. In such a case, the amount of Central aid to the State would be calculated on the assumption that the actual expenditure per pupil incurred in that State was to be the basis assumed in the equalisation programme. The State would thus lose financially and would be induced to spend more per pupil.

(2) In every State, the total expenditure on elementary education incurred in any given year should not be less than the amount realised by the minimum prescribed effort to be made by the State *plus* the amount of Central aid given for that year. If the actual expenditure in any given year were to fall short of this sum, the Central aid to be given to the State during the next year should be adjusted accordingly.

The second condition is more important and fundamental and includes the first as well. A clear insistence on this principle will see to it that the Central aid is not diverted to purposes other than elementary education.

VII

Equalisation Grants from States to Local Bodies: The Principle of equalisation suggested by us as between the Centre and the States is also equally applicable to the grants-in-aid, for the purpose of elementary education, from the States to the local bodies. In this connection, we make the following recommendations.

(1) In determining the grants to Zilla Parishads or Panchayat Samitis which are rural bodies, the basis of land revenue per pupil

enrolled in schools may be adopted to indicate the ability of the local body to support elementary education. This is an easily ascertainable base and it also fairly indicates the economic capacity of the local body. In other words, the grants to Zilla Parishads and Panchayat Samitis given by State Governments should be made to vary on the basis of the land revenue per pupil raised in the area of the Zilla Parishad or Panchayat Samiti concerned.

(2) With regard to the municipalities, the valuation of the property within its area will provide a good basis of its ability to support elementary education. At present, all municipal bodies levy a house tax and a tax on open sites. The rates of these taxes vary from one municipality to another; but it should be possible for the State Government to lay down that all municipalities within its area would make an equal effort for elementary education, i.e., they would contribute a prescribed percentage of an educational cess on real property situated within its area for the purposes of elementary education and the difference between the amount so raised and the total programmed expenditure as decided by the State, should be given as a grant-in-aid.

We had an intention of working out the details of an equalisation programme for two States, Rajasthan and Maharashtra. We selected Rajasthan because Panchayat Samitis in this State have been placed in charge of primary education and a study of equalisation programme for Rajasthan would have given a picture of the manner in which it would be operated with regard to Panchayat Samitis. In Maharashtra, the Zilla Parishads and municipalities are in charge of elementary education and it would, therefore, have been possible to see how the programme works in relation to the urban local authorities and the district level local bodies. But it was not possible for us to obtain all the necessary data in time. *We would, however, recommend that separate studies should be made, on the principles recommended above, for these two States as early as possible. At a later stage, it would be worth while to carry out similar studies for every State of the Indian Union. We strongly feel that if such studies are carried out for all the States of the Indian Union and brought to the notice of the authorities concerned, public opinion would be adequately educated on the advantages of an equalisation programme.* This would ultimately help in securing larger funds for elementary education and expediting its expansion and improvement.

A Summary of Findings and Recommendations. For convenience of reference, we give below a summary of our main findings and recommendations.

1. The object of this paper is to suggest a new system for the financing of elementary education in India, based on the principle of equalisation.

2. The process of "equalisation" in public school finances arises from two democratic principles: (a) all children should have equal educational advantages, and (b) the burden of the support of education should be borne equally by the tax payers.

3. Equalisation is necessitated whenever the territory in which the pupils live is divided into units of unequal financial ability. Even a casual study of the Indian situation will show that the States vary considerably in their ability to support elementary education; and within a given State, the different Panchayat Samitis, Zilla Parishads and municipalities will also show similar (or even larger) variations of economic ability.

4. In 1961, the total enrolment in elementary schools in the Indian Union was 416 million and the total expenditure on elementary education was Rs. 1,198 million. The cost per pupil was Rs. 32.13 and the country spent 0.827 of its national income on elementary education which worked out at Rs. 2.73 per head of population. If the directive principle of Article 45 of the Constitution is to be implemented by 1981, the enrolments in elementary schools are expected to rise to 140 million. The cost per pupil would have to be raised to Rs. 65 at least to provide for that measure of qualitative improvement which is now universally desired. This will raise the total expenditure on elementary education to about Rs. 10,000 million (inclusive of non-recurring expenditure) or 2.4 per cent of the estimated national income in 1981 which works out at Rs. 14.3 per head of population.

5. A vast programme of this type cannot be successfully attempted on the present basis of grant-in-aid from the Centre to the States. At present, Central grants are given for developmental expenditure only and there are no specific earmarked grants for elementary education. If the programme of elementary education is to progress according to schedule, it is necessary to institute a specific earmarked Central grant to States for purposes of elementary education. It should cover all expenditure on the programme,

committed as well as developmental, recurring as well as non-recurring. This new system should be brought into force at the end of the Third Five Year Plan so that the progress—quantitative and qualitative—of elementary education in the succeeding three Plans would be accelerated and universal elementary education provided by 1981.

6. The Central grants to the States should be based on the principle of equalisation, i.e., the aid to any given State should be inversely proportional to its ability to support elementary education. In other words, the richer States should get less and the poorer States more aid per pupil from Central funds. Moreover, the same level of elementary education (as indicated by the cost per pupil) should be attainable in every State for the same prescribed minimum effort, i.e., if the State expends on the programme of elementary education a given percentage of its total income.

7. A study of the development of elementary education in the States of the Indian Union reveals that they show immense variations in (a) the complexity, extent and difficulty of the problem to be faced, (b) their ability to support education and the actual effort made to do so, and (c) the level of expansion reached as well as the quality of education provided. There is hardly any justification for most of these variations which could be considerably reduced by a programme of equalisation.

8. The basis adopted for equalisation should be the cost per pupil.

9. The equalisation grants for elementary education, as recommended in this report, should be introduced at the end of the Third Plan. The general principle adopted should be that the Centre should bear one-third of the total expenditure on a programme of elementary education and the remaining two-thirds should be borne by the States, the local authorities and the local communities. By and large, this would imply that the Centre would bear about half the expenditure incurred on salaries and allowances of teachers, the other half being borne by the State Governments. The non-teacher costs also would be shared between the States and the local authorities (or local communities) on 50 : 50 basis.

10. The principle of equalisation suggested here to govern the Central grants to the States could also be extended to govern the State grants to the local authorities—the Zilla Parishads, the Panchayat Samitis, and municipalities. In the case of Zilla Parishads and Panchayat Samitis, the land revenue raised per pupil enrolled in schools should be taken as a measure of their ability to support elementary education and the State grants apportioned accordingly. In the case of municipalities, the income per pupil enrolled in elementary schools as realised from a tax on real property (houses and open sites), collected at a prescribed rate, should be taken as the basis of the ability of the municipal body concerned to support elementary education and the State grant should be apportioned accordingly.

11. It would be desirable to work out the details of a programme of equalisation grants between the Centre and the States as at the end of the Third Five Year Plan on some suitable basis that may be agreed to between the Centre and the States. Similar studies should also be carried out for programmes of equalisation in each of the States for equalising the grant-in-aid to local bodies. Such studies should also be publicised for the information of all concerned.

STATISTICAL TABLE I

TOTAL NUMBER OF CHILDREN IN THE AGE-GROUP 6-14 (1961)

State	Total population as enumerated in 1961 census			Total number of children in the age-group 6-14			Percentage of children in the age-group 6-14 to total population		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Andhra Pradesh	1,81,61,671	1,78,21,776	3,59,83,447	33,96,000	33,85,600	67,81,600	18.70	19.00	18.85
Assam	63,28,129	55,44,643	1,18,72,772	12,75,900	12,39,700	25,15,600	20.16	22.36	21.19
Bihar	2,33,01,449	2,31,54,161	4,64,55,610	48,53,400	45,53,600	94,07,000	20.83	19.67	20.25
Gujerat	1,06,33,902	99,99,448	2,06,33,350	22,10,400	20,80,000	42,90,400	20.79	20.80	20.79
Jammu and Kashmir	18,96,633	16,64,343	35,60,976	3,58,800	3,32,800	6,91,600	18.92	20.00	19.42
Kerala	83,61,927	85,41,788	1,69,03,715	16,97,800	17,05,200	34,03,000	20.30	19.96	20.13
Madhya Pradesh	1,65,78,204	1,57,94,204	3,23,72,408	31,31,700	29,96,900	61,28,600	18.89	18.97	18.93
Madras	1,69,10,978	1,67,75,975	3,36,86,953	30,41,900	30,42,700	60,84,600	17.99	18.14	18.06
Maharashtra	2,04,28,882	1,91,24,836	3,95,53,718	40,31,900	37,68,000	77,99,900	19.74	19.70	19.72
Orissa	87,70,586	87,78,260	1,75,48,846	16,76,000	17,21,900	33,97,900	19.11	19.62	19.36
Punjab	1,08,91,576	94,15,236	2,03,06,812	22,92,200	20,37,600	43,29,800	21.05	21.64	21.32
Rajasthan	1,05,64,082	95,91,520	2,01,55,602	21,46,900	20,09,200	41,56,100	20.32	20.95	20.62
Uttar Pradesh	3,86,34,201	3,51,12,200	7,37,46,401	72,76,400	68,39,400	1,41,15,800	18.83	19.48	19.14
West Bengal	1,85,99,144	1,63,27,135	3,49,26,279	34,74,500	33,85,200	68,59,700	18.68	20.73	19.64
Mysore	1,20,40,923	1,15,45,849	2,35,86,772	22,91,000	22,65,100	45,56,100	19.03	19.62	19.32
All Union Territories	41,06,140	36,73,092	77,79,232	6,95,383	6,44,783	13,40,166	16.94	17.55	17.23
TOTAL INDIA	22,62,03,427	21,28,64,466	43,90,72,893	4,38,50,183	4,20,07,683	8,58,57,866	19.38	19.73	19.55

STATISTICAL TABLE II

ENROLMENT IN ELEMENTARY SCHOOLS (CLASSES I-VIII) 1961

State	Total enrolment in classes I-VIII			Percentage of enrolment to population in the age-group 6-14.		
	Boys	Girls	Total	Boys	Girls	Total
Andhra Pradesh	21,56,464	12,27,476	33,83,940	63.5	36.3	49.9
Assam	8,69,921	4,75,554	13,45,475	68.2	38.4	53.5
Bihar	29,24,365	7,94,905	37,19,270	60.3	17.5	39.5
Gujerat	15,85,331	8,32,007	24,17,338	71.7	40.0	56.3
Jammu and Kashmir	2,12,592	56,631	2,69,223	59.3	17.0	38.9
Kerala	16,79,445	14,06,864	30,86,309	98.9	82.5	90.7
Madhya Pradesh	18,21,448	4,91,236	23,12,684	58.2	16.4	37.7
Madras	25,34,544	14,89,790	40,24,334	83.3	49.0	66.1
Maharashtra	30,49,090	16,47,714	46,96,804	75.6	43.7	60.2
Orissa	10,66,112	4,52,254	15,18,366	63.6	26.3	44.7
Punjab	13,26,400	5,51,867	18,78,267	57.9	27.1	43.4
Rajasthan	10,78,541	2,43,031	13,21,572	50.2	12.1	31.8
Uttar Pradesh	39,26,614	9,90,602	49,17,216	54.0	14.5	34.8
West Bengal	22,65,406	11,54,440	34,19,846	65.2	34.1	49.9
Mysore	16,23,205	9,08,113	25,31,318	70.9	40.1	55.6
All Union Territories	5,47,594	3,09,083	8,56,677	78.7	47.9	63.9
TOTAL INDIA	2,86,67,072	1,30,31,567	4,16,98,639	65.4	31.0	48.6

STATISTICAL TABLE III

TOTAL DIRECT EXPENDITURE ON ELEMENTARY EDUCATION (1961)

State	Total direct expenditure on primary schools	Total direct expenditure on middle schools	Total direct expenditure on elementary schools	Total direct expenditure per pupil in			Total direct expenditure on elementary education per head of population	Percentage of total direct expenditure on elementary education to total educational expenditure
				Primary schools	Middle schools	Elementary schools		
	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)	
Andhra Pradesh	7,60,55,007	1,66,27,356	9,26,83,363	28.4	47.2	30.6	2.58	37.1
Assam	2,22,77,859	9,99,40,532	3,22,18,391	21.3	49.2	25.8	2.71	36.0
Bihar	4,48,88,829	2,63,68,662	7,07,57,491	16.4	32.5	20.1	1.52	31.3
Gujerat	2,87,01,247	4,55,83,213	7,42,84,460	40.4	29.7	33.1	3.60	39.2
Jammu and Kashmir	38,00,286	31,54,239	69,54,525	25.7	48.3	32.6	1.95	34.2
Kerala	5,52,49,811	3,40,25,753	8,92,75,564	30.6	44.1	34.7	5.28	56.3
Madhya Pradesh	6,21,36,592	2,56,83,224	8,78,19,816	36.9	52.6	40.5	2.71	43.4
Madras	7,28,02,522	4,17,15,942	11,45,18,464	29.2	37.7	31.8	3.40	36.1
Maharashtra	6,93,03,077	9,37,37,212	16,30,40,289	38.9	38.5	38.7	4.12	33.3
Orissa	2,06,19,075	62,85,603	2,69,04,678	15.2	58.1	18.4	1.53	37.6
Punjab	3,37,70,167	1,71,24,070	5,28,94,237	36.1	54.1	40.4	2.60	29.5
Rajasthan	2,93,97,898	1,77,99,825	4,71,97,728	33.3	56.3	39.4	2.34	37.2
Uttar Pradesh	4,85,15,615	2,73,27,754	10,58,43,369	19.8	49.7	23.5	1.44	26.6
West Bengal	7,08,66,882	1,51,38,515	8,60,05,397	26.9	67.1	30.1	2.46	25.5
Mysore	8,92,47,901	3,78,20,026	7,70,67,927	30.8	32.3	31.5	3.27	43.6
All Union Territories	2,53,13,901	1,08,87,850	3,62,03,283	52.0	71.8	56.7	4.65	23.5
TOTAL INDIA	78,44,49,201	42,92,19,776	1,16,36,68,977	27.6	40:5	31.2	2.65	33.8

STATISTICAL TABLE IV

TOTAL EXPENDITURE ON TRAINING OF ELEMENTARY TEACHERS (1961)

State	Total number of training institutions for elementary teachers	Total enrolment in training institutions for elementary teachers (including enrolment in attached classes)	Total direct expenditure on the education of elementary teachers	Cost per trainee in training institutions	Percentage of total direct expenditure on the training of elementary teachers to the total direct expenditure on elementary education	Cost of the training of elementary teachers per pupil in elementary schools	Cost of training elementary teachers per head of population
	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)
Andhra Pradesh	137	14,734	29,34,640	196.0	3.1	0.97	0.08
Assam	36	2,493	7,89,198	340.5	2.4	0.63	0.07
Bihar	122	16,860	53,35,980	316.5	7.0	1.51	0.11
Gujerat	78	8,686	19,94,476	243.8	2.6	0.89	0.10
Jammu and Kashmir	10	638	6,88,621	11.323	9.0	3.23	0.19
Kerala	80	5,759	9,41,900	163.5	1.0	0.37	0.06
Madhya Pradesh	48	5,340	33,92,489	635.3	3.7	1.56	0.10
Madras	32	10,937	3,53,393	1154.5	3.1	0.10	0.01
Maharashtra	175	18,665	53,54,348	285.2	3.2	1.27	0.14
Orissa	82	4,741	6,49,383	136.9	2.4	0.44	0.04
Punjab	27	6,135	7,34,957	246.3	1.4	0.56	0.04
Rajasthan	55	6,578	32,35,583	501.0	6.4	2.70	0.16
U. P.	155	13,521	54,05,846	450.0	4.9	1.20	0.07
West Bengal	65	2,848	6,75,808	242.3	0.8	0.24	0.02
Mysore	24	3,030	16,68,543	647.7	2.1	0.68	0.07
All Union Territories	12	1,007	4,59,333	471.6	1.3	0.72	0.06
TOTAL INDIA	1,138	1,21,972	3,46,14,498	319.5	2.9	0.93	0.08

INDEX